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BOOK-KEEPING

SINGLE AND DOUBLE ENTRY

CALVIN G. HUTCHINSON

WALTER S. PARKER

BOSTON

WILLIAM WARE AND COMPANY

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THE
PRINCIPLES AND PRACTICE
OF
BOOK-KEEPING

SINGLE AND DOUBLE ENTRY

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DESIGNED FOR THE USE OF SCHOOLS AND INDIVIDUALS

BOSTON
WILLIAM WARE AND COMPANY
1886

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PREFACE.

Mercantile Book-keeping is the recording of financial transactions in a systematic manner. The province of a text-book upon the subject is to explain the method by which certain classes of facts are to be recorded. To convey a knowledge of principles is the only way to make such an explanation clear, but only the inferior laws which govern the *manner of recording*, are to be considered; the superior laws which govern the *facts themselves*, belong to the study of Political Economy.

The authors of this work have thought best to tell the "Story of Accounts" in an explanatory manner, illustrating the different topics by facsimiles of memoranda, drafts, notes, checks, account-books, etc., which the trader and merchant use in their daily business,—thus showing the instrument and explaining its nature and application at the same time. By this plan the teacher is left to question as he may find necessary, avoiding any set form of "question and answer," which leads to the habit of memorizing, without a complete understanding.

The first section of the book treats of the **Elementary Principles** underlying all account-keeping, showing how the farmer or mechanic can make a simple memorandum of his daily transactions either of sale or purchase; how he may make a transfer of credit, receive and give notes and at any time take an inventory and valuation of his property.

The **Single-Entry section** leads the student on to the consideration of the character of the business of a country trader, illustrated by complete sets of books necessary for such a business, with an analysis of the relation of accounts to each other, together with a clear exposition of what debit and credit really mean in business.

The **Double-Entry section** opens with an explanation of the Subordinate accounts, showing the relation of outlays, returns, and capital to the Ordinary accounts; then follows an exposition of the system,—journalizing, surveys of the ledger, forms of entries, books of original entry, auxiliary books, and trial balances. This section is made more complete by the addition of many topics closely related to it, which, though not usually considered in books of this kind, the student who passes to the counting-house will find of great value. These are CONSIGNMENT ACCOUNTS, THE ALPHABETICAL ARRANGEMENT OF THE LEDGER, TRANSPOSED NUMBERS, THE METRIC SYSTEM OF WEIGHTS AND MEASURES, AGENCY AND PARTNERSHIP, STOCK COMPANIES, BANKING AND CLEARING-HOUSE, INVOICES FROM FOREIGN COUNTRIES, MONEY AND EXCHANGE, COMMON CARRIERS, AND PROBATE MATTERS.

At the end of each section and at the close of the book are given varied examples for practice, covering a wide range; and useful hints tending to facilitate arithmetical operations are embodied wherever pertinent to the topic. The Test-Ledger given is designed as a drill exercise for each scholar separately and an entire class together.

The authors are under obligations to many business and professional gentlemen for information given and interest taken in answering and settling questions on disputed and doubtful matters.

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COMMERCIAL ABBREVIATIONS.

A 1, first-class.
a, or *@*, to, or at.
acct., or *q.*, account.
a/d, after date.
Admr., administrator.
Admx., administratrix.
a/o, account of.
a/s, account of sales.
Agt., agent.
A.M., forenoon, Master of Arts.
Am., or *Amer.*, American.
amt., amount.
An. (*anno*), year.
arr., arrive, arrivals.
Atty., attorney.
Asgn., assignee.
av., average.
avr., avoirdupois.

bal., balance.
bbl., barrel.
Bk., bank, or book.
B/E, bill of exchange.
B. of L., or *B/L*, bill of lading.
B.M., board measure.
Borr., borrowed.
Bot., bought.
Bro., brother.
bush., bushel.
bxs., boxes.

Cap., capital.
Capt., captain.
C.B., cash-book.
Cashr., cashier.
C.F.I., cost, freight, and insurance.
C.E., civil engineer.
C.H., court house.
cl'd., cleared.
Clk., clerk.
ck., check.
C.O.D., collect on delivery.
Coll., collect.
Co., company, county.
c/o, care of.
Contr., contract.
Cr., creditor.
ct., cent; *cts.*, cents.
cur., current, this month.
cum d., with dividend.
cu. ft., cubic feet.
cwt., a hundred weight.

D.B., day-book.
d., pence.
d., or *dys.*, days.
d/d, days' date.
d/s, days' sight.
Dept., department.
Decr., decrease.
Dft., draft.
div., dividend.
do. (*dito*), the same.
dos., dozen.
Dr., debtor, or doctor.
dr., drams.
dwt., pennyweight.
dis., discount.

E., East.
E.E., errors excepted.
E. & O. Ex., errors and omissions excepted.
Eng., English.
eq., equal.
Esq., esquire.
et al., and others.
etc., or *&c.*, and so forth.
ex, from, without.
ex/cp., without coupon.
ex div., or *ex/d*, without dividend.
ex S.S., from steamship.
exch., exchange.
Exr., executor.
Exrx., executrix.

Fr., or *f.*, francs.
F.O.B., free on board.
fg., figures.
Fl., florins.
Fol. (*folio*), page.
fr., from.
frt., freight.
ft., feet.
fth., fathom.

gal., gallon.
G. B., Great Britain.
Gentln., gentlemen.
gr., grains.
gro., gross.
gt. gro., great gross.

h., hour.
hdkf., handkerchief.

h. e. (*hoc est*), that, or this, is.
hf. ch., half chest.
hhd., hoghead.

ib. (*ibidem*), in the same place.
id. (*idem*), the same.
i. e. (*id est*), that is.
in., inches.
Inc., increase.
inst., instant, this month.
Ins., insurance.
Int., interest.
Invt., inventory.
in trans., on the passage.
Inv., invoice.
Isl., island.
Ital., Italian.

j/a, joint account.
J.P., justice of the peace.
Jour., journal.
Jun., or *Jr.*, junior.

Ki., *Ko.*, or *K'ilo*, kilogram.

Lat., latitude.
L., or *£*, pounds sterling.
L.F., ledger page.
L. (*liber*), book.
lb., pound weight.
L.S. (*locus sigilli*), place of the seal.
Liq., liquidation.
Lon., longitude.

mach., machinery.
Madm., or *Mme.*, madame.
manfg., manufacturing.
M.D., Doctor of Medicine.
mdse., merchandise.
mech., mechanics.
Mem., memorandum.
Messrs., or *MM.*, gentlemen.
Mt., metric; *M.*, meter.
M. ft., or *M.F.*, thousand feet.
Mkt., market.
Mlle., mademoiselle.
mo., month, *mos.*, months.
m/d, months' date.
m/s, months' sight.
Mr., Master, or Mister.
Mrs., Mistress.
MS., or *MSS.*, manuscripts.

No., or *Num.*, or $\frac{x}{y}$, number.

Nos., or $\frac{x}{y}$, numbers.

N., North.

N.B., take notice.

N.M., new measurement.

obdt., obedient.

O.M., old measurement.

o/a, on account.

oz., ounce.

p., page, or pint; *pp.*, pages.

Paymt., payment.

pcs., pieces.

Pd., paid.

per, or *pr.*, by.

pk., peck.

pkgs., packages.

Per an., by the year.

per cent., or *pr. ct.*, by the hundred.

P.M., postmaster, afternoon.

P.C., postal-card, price current.

P.O.D., post-office department.

P.O., post-office.

P.O.O., post-office order.

ppty., property.

Prem., premium.

Pres., president.

p.p., *per pro.*, by procuration, by attorney.

pro tem., for the time being.

prs., pairs.

prox. (*proximo*), next month.

proxy, a substitute.

P.S., postscript.

Qr., quarter, 28 lbs.

qr., quire.

qt., quart.

qy., query.

Recd., received.

Rect., receipt.

Rem., remarks.

Rmk., reichmark.

Retd., returned.

R.R., railroad.

Ry., railway.

Sec., secretary.

S., south, or *s.*, a shilling.

S.S., steamship.

schr., schooner.

sld., sailed.

sq., square.

Sr., senior.

St., street, or saint; *Sts.*, streets.

Stg., sterling.

Supt., superintendent.

Tal. qual. (*talis qualis*), just as they come, or average.

tes., tierces.

T.O., turn over.

Tonn., tonnage.

ull., ullage.

ult. (*ultimo*), last month.

u.s. (*ut supra*), as above.

vid., see.

vis., to wit, namely.

v., or *vs.* (*versus*), against.

wt., or *wgt.*, weight.

whf., wharf.

wk., week.

W., West.

Xm., or *Xmas*, Christmas.

Y., or *yr.*, year.

yd., *yds.*, yards.

Days of the Week.

1	2	3	4	5	6	7
<i>Sun.</i>	<i>Mon.</i>	<i>Tues.</i>	<i>Wed.</i>	<i>Thurs.</i>	<i>Fri.</i>	<i>Sat.</i>
<i>Su.</i>	<i>M.</i>	<i>Tu.</i>	<i>W.</i>	<i>Th.</i>	<i>F.</i>	<i>Sa.</i>

Months.

1	2	3	4	5	6	7	8	9	10	11	12
<i>Jan.</i>	<i>Feb.</i>	<i>Mch.</i>	<i>Apt.</i>	<i>May.</i>	<i>Jun.</i>	<i>Jly.</i>	<i>Aug.</i>	<i>Sept.</i>	<i>Oct.</i>	<i>Nov.</i>	<i>Dec.</i>
<i>Ja.</i>	<i>F.</i>	<i>Mh.</i>	<i>Ap.</i>	<i>My.</i>	<i>Je.</i>	<i>Jl.</i>	<i>Ag.</i>	<i>S.</i>	<i>O.</i>	<i>N.</i>	<i>D.</i>

Dates are sometimes written in numbers; thus, *1/20/83*, which means Jan. 20, 1883. The number of the month should precede that of the day of the month, as, up to the twelfth day, the two may be read interchangeably.

States and Territories.

<i>Ala.</i>	<i>Dak.</i>	<i>Ill.</i>	<i>Mne., Me.</i>	<i>Mso., Mo.</i>	<i>N.M.</i>	<i>R.I.</i>	<i>Va.</i>
<i>Ark.</i>	<i>Del.</i>	<i>Ind.</i>	<i>Mid., Md.</i>	<i>Mon.</i>	<i>N.Y.</i>	<i>S.C.</i>	<i>Wsh.</i>
<i>Cal.</i>	<i>D.C.</i>	<i>Ioa.</i>	<i>Mass., Mass.</i>	<i>Neb.</i>	<i>N.C.</i>	<i>Ten.</i>	<i>W. Va.</i>
<i>Col.</i>	<i>Fla., Fla.</i>	<i>Kns.</i>	<i>Mch., Mich.</i>	<i>Nev.</i>	<i>Oh., O.</i>	<i>Tex.</i>	<i>Wis.</i>
<i>Col., Col.</i>	<i>Geo., Ga.</i>	<i>Ken., Ky.</i>	<i>Min., Minn.</i>	<i>N.H.</i>	<i>Ore.</i>	<i>Uta.</i>	<i>Wyo.</i>
<i>Con., Ct.</i>	<i>Ida.</i>	<i>Lou., La.</i>	<i>Mst., Miss.</i>	<i>N.J.</i>	<i>Pen., Pa.</i>	<i>Ver., Vt.</i>	

Signs.

+, plus; −, minus; ×, multiply; ÷, divide; =, equal to; %, per cent; $\frac{x}{y}$, account; $\frac{x}{y}$, numbers; &, and; @, to, or at; \pounds , per, or by; /, shilling mark; 1/6, one shilling sixpence.

\$, dollars; *Fl.*, florins; *Fr.*, francs; £, pounds sterling; *Rmk.*, reichmark; *s.*, shillings; *d.*, pence; *L. S. D.*, pounds, shillings, pence.

$1^1 = 1\frac{1}{2}$; $1^2 = 1\frac{1}{4}$; $1^3 = 1\frac{1}{8}$.

In reading figures and fractions, 30^1 , 30^2 , 30^3 are read *thirty and one*, *thirty and two*, *thirty and three*, the quarters being understood, in order to mark and emphasize the distinction between them and the numbers 31, 32, 33, which are read in the ordinary way; and so with any number of tens. 31^1 would be read *thirty-one one*. This is the usual practice in calling off figures of weights or measures by one clerk, to another who writes them down.

BOOK-KEEPING.

ELEMENTARY PRINCIPLES.

CHAPTER I.

SECTION 1. — A Simple Memorandum.

1. EVERY person in civilized society is dependent upon the labor or property of others, and all the relations of life require some sort of account-keeping; for the memory is oftentimes unreliable, and needs to be supplemented by a written record. The following form of a farmer's journal, diary, memorandum, or commonplace-book will be found convenient in any small business where entries are not very numerous.

In it may be noted, in the consecutive order of dates, any occurrences, contracts, business transactions, data in regard to growth of crops, weather, persons, local or family matters, which may be desired to be preserved.

2. The margin at the left hand is at first left blank, wherein may be afterwards written the fulfilment of contracts, payment of bills, explanatory remarks, etc.

MEMORANDUM. — Ashby, Mass., April 1, 1882.

	1882.
<i>Sept. 7, 1882.</i> <i>Paid and discharged.</i>	April 1. — John Radford began work at \$15 per month.
<i>Nov. 6, 1882.</i> <i>Paid and discharged.</i>	April 4. — Engaged Daniel Barry as farm-hand for seven months at \$17 per month, to begin on 6th inst.
<i>Aug. 20, 1882.</i> <i>Settled with Cook.</i>	April 6. — D. Barry began work. Laid down Lot No. 4, sowing grass-seed and summer rye. Engaged to furnish R. Cook 5 gallons milk per day till Aug. 15 @ 30 cts. per gallon.
<i>Received pay May 1.</i>	April 7. — Sold Kilburn Hoyt 1 steer @ \$26.
<i>July 8, 1882.</i> <i>Paid Stearns.</i>	April 9. — Planted in Lot No. 5, 12 bushels Early Rose potatoes @ 50 cts. per bushel. Planting cost \$2. Bought of Daniel Stearns a lot of wood-ashes for \$20, to be used in the turnip-field and in hills with corn.

DEBTOR AND CREDITOR.

MEMORANDUM. — Continued.

<i>Paid for May 9.</i>	1882.		
	April 10. — Sold Kilburn Hoyt 1 calf @ \$7.50.		
<i>Received cash, \$84.</i>	Sept. 1. — Sold John Bailey 100 bushels potatoes @ 60 ¢,	\$60.00	
	80 lbs. butter @ 30 ¢,	24.00	
	Sept. 5. — Bought of K. Hoyt 5 hogs, @ \$10 each, \$50, to be fattened.		
	Sept. 9. — Sold for cash 30 chickens @ 50 ¢ each,	\$15.00	
	Apples, cheese, onions, eggs, etc.,	37.20	
		\$52.20	
	Sept. 10. — Sowed Lot No. 6 to winter wheat, and harrowed it. 8 bush. seed @ 90 cts. cost \$7.20		
	Labor, men and horses, 5.25	\$12.45	
<i>Paid for Nov. 15, 1882.</i>	Sept. 15. — Bought of Joel Page, on two months' credit,		
	1 pair oxen, \$120.00		
	1 yoke steers, 55.00	\$175.00	

SECTION 2. — Debtor and Creditor.

3. A good system has very much to do with the best economy of time and labor. Such a memorandum as the foregoing, while valuable as a diary or history, and convenient for jotting down miscellaneous memoranda, becomes very inconvenient when entries are numerous; and they need to be so systematized, indexed, and arranged, that the required information may be readily found and compared.

To this end certain forms have come into general use, and the principal terms in them are the words "debtor" and "creditor," used in the sense of indebtedness.

A person who buys an article or employs the labor of another, for which he does not pay at the time of its reception, is said to become indebted for it, and is called a **debtor**.

A person who sells an article or performs labor for another, without receiving his pay at the time of its delivery, is said to give credit for it, and is called a **creditor**.

4. For example: suppose that George Jones buys of John Norcross one barrel of flour at \$7, for which he does not pay at the time. Jones becomes a debtor, because he has bought and received an article for which he has not paid. Norcross becomes a creditor, because he has sold and delivered an article for which he has not received payment.

If Norcross knew nothing whatever of the forms of keeping accounts, and wished to preserve a record of the transaction, it would be natural for him to write a description of it something like this; viz., —

“I have to-day, Sept. 15, 1882, sold to George Jones one barrel of flour, for which he is to pay me seven dollars.”

Jones, under like circumstances, would describe it as follows; viz., —

“I have to-day, Sept. 15, 1882, bought of John Norcross one barrel of flour, for which I am to pay him seven dollars.”

5. It is evident that such entries as these, while clear, true, and legal, are too long and cumbersome for quick and general use; and the following forms have been adopted by custom.

Norcross would write in his account-book as follows: —

1882.	Norcross's Book.		
Sept. 15.	George Jones, Dr.,	To 1 bbl. flour,	\$7.00

And Jones would adopt a different form in his account-book, as follows: —

1882.	Jones's Book.		
Sept. 15.	John Norcross, Cr.,	By 1 bbl. flour,	\$7.00

Each of these forms expresses one and the same fact, but in a different way, the one being the reverse of the other.

It should be remembered that the creditor writes the debtor's name in his (the creditor's) book, while the debtor writes the creditor's name in his (the debtor's) book.

6. The relation of either party to a transaction decides in which of the two forms he is to make his record or entry of it upon his own book.

The terms “debtor” and “creditor” are relative, and the one implies and involves the other; for it is plain that a person cannot owe a debt unless there is some one to whom he is indebted; that is, there can be no debtor without a creditor, nor can there be a creditor without a debtor.

Credit may be said to be the deferring or putting-off of payment, on the part of the debtor, by an agreement to that effect with the creditor. It exists, on the one side, by the delivery or pledge of a specific value to the debtor on the part of the creditor, and, on the other, by the expectation of the creditor to receive back an

equal value from the debtor. It is limited by the ability to pay, and is determined in each case by the values exchanged.

A record-book may be simply a day-book or history in chronological order; and, where it is a book of original entries made at the time of the occurrence, it will be good evidence of the transactions recorded.

SECTION 3. — Addition and Subtraction.

7. Facility in *addition* and *subtraction* is of the utmost importance in book-keeping, for the whole system is founded, primarily, upon these two processes. The rapidity of thought is much beyond the power of speech, and a person of ordinary memory, who is familiar with a paragraph which is read, can anticipate what is to follow in its order, and, in his own mind, keep several sentences in advance of the spoken words of the reader. Variations in the order of the nine digits can be made to the number of 362,880; but only ninety changes are required in order to add each digit to each of the other eight and to itself; and these may be so thoroughly memorized that the sum of two or more numbers is instantly presented to the mind when the eye sees them for that purpose. Numbers should not be named in addition: instead of saying in slow detail, as children often do in beginning, $5 + 4 = 9 + 3 = 12 + 6 = 18 + 5 = 23 + 2 = 25 + 7 = 32 + 8 = 40$, in adding together the numbers 5, 4, 3, 6, 5, 2, 7, 8, say mentally, but without naming the numbers or their sums, 5, 9, 12, 18, 23, 25, 32, 40, and, after sufficient experience, the mind grasps the figures almost unconsciously, and the result is reached as quickly as the eye can glance along the line with attention.

Two columns may be added at once: thus, commencing at the top with tens, and following with units, the process is, $29 + 30 = 59 + 2 = 61 + 50 = 111 + 6 = 117 + 80 = 197 + 4 = 201 + 70 = 271 + 1 = 272$; and it may be proved by beginning at the foot with units: thus, $71 + 4 = 75 + 80 = 155 + 6 = 161 + 50 = 211 + 2 = 213 + 30 = 243 + 9 = 252 + 20 = 272$; but the process must be mental, without naming numbers, in order to be rapid. Two numbers of three or more places may be conveniently added, beginning at the left, by noting whether there is a figure to come

29
32
56
84
71
272

To	854
Add	967
	1,821

forward from the right-hand figures: for example; thus, $8 + 9 + 1 = 18$; $5 + 6 + 1 = 12$; $4 + 7 = 11$; and we write down at once, beginning at the left, $854 + 967 = 1821$. And practice will make it as easy to arrive at as that $8 + 7 = 15$; and so of any number.

Subtraction, beginning at the left hand, is often convenient. In this illustration the upper numbers are all larger than those beneath them, and the subtraction can be performed equally well from right

From	1,642,327
Subtract	876,458
Leaves	765,869

or left; but if we reverse these numbers, increasing the lesser sum by one million, the upper figures are less than those immediately beneath them, and, beginning at left, we say, $16-9=7$; $14-8=6$; $12-7=5$;

From	876,458
Subtract	642,327
Leaves	234,131

$13-5=8$; $12-6=6$; $17-8=9$; and write down, beginning at left, 765,869. When a sum to the right of a place in the lower line is larger than the sum immediately over it, the figure to be subtracted at that place must be increased by one. These two numbers, $765,869 + 234,131 = 1,000,000$, and are complements to each other. Accountants reach the same result in two ways before they assume it to be correct. Addition is proved by repeating it in two directions. The footings of long columns should be noted in pencil for each decimal place. Horizontal addition is good practice, taking figures of the same place at each step, thus: add \$115.47, \$9.02, \$0.21, \$14.19, \$21.25, \$192.89, \$36.16, \$54.18 =

47
19
31
21
2
\$443.37

CHAPTER II.

SECTION 1. — Ordinary Accounts.

8. The commercial mode of recording financial transactions is called **Book-keeping**. The end sought in the usual methods of keeping books is to present a clear, concise, and systematic record or history of such transactions.

In business of any kind four principal or major classes of transactions may occur: they are, —

- I. When we buy or sell any thing, goods or labor, upon an open account.
- II. When we receive or pay out money.
- III. When we receive a note, or promise to pay, signed by another person, and when it is redeemed by its signer, or disposed of otherwise.
- IV. When we issue our own note, and when we redeem it.

All kinds of actual business transactions may be comprised under some one of these heads; and the forms of book-keeping in general use have grown out of this fact.

9. There is also made, at stated times in any business, an estimate of the quantities and values of the property or plant in which money or capital is invested or planted. This estimate is made by actual count and appraisal of the property in question; and its sum, when found, is included in a list of property under its appropriate name. We call this list a "minor account," as it occurs only at regular periods, and not in the daily routine of business, and apply the name "Valuation account" as a general descriptive title for such a list.

10. Therefore, even in single-entry book-keeping, ledger accounts of four major classes, and also one of a minor class, are used. They are comprised under the following heads:—

MAJOR . . .	{	I. Accounts Current.
		II. Cash.
		III. Notes Receivable.
		IV. Notes Payable.
MINOR		V. Valuation Account.

We class these accounts under the general head of ORDINARY ACCOUNTS in order to distinguish them from another class in double-entry book-keeping.

SECTION 2. — Form of the Ledger Accounts.

11. The principal account-book is the ledger, to which the books of original entry lead up, and their items must be embodied in it for final adjustment. A transaction

JOHN BROWN.				
1882.				
Jan.	1	Goods sold him,	500	00
"	5	Cash received from him,	200	
		Balance due me,	300	
"	6	Goods received from him,	400	
		Balance due him,	100	
"	10	Goods sold him,	600	
		Balance due me,	500	
"	15	Goods bought of him,	800	
		Balance due him,	300	
"	19	Cash paid him,	300	
"	25	Goods delivered to him,	900	
"	30	Cash received from him,	400	
		Balance due me,	500	

might be at once entered under its proper head in the ledger but for the liability to error in the hurry of business; and it is better to make a record of the day's business by itself, and transfer it to its several heads in the ledger when more at leisure.

It is easier to understand the forms of the minor books after getting a clear idea of the ledger forms into which the data are to be finally arranged: and we therefore begin with them. An account might be kept somewhat like the accompanying with John Brown.

This statement shows an irregular series of plus and minus quantities, and involves a separate addition or subtraction for each item. With many entries it becomes complicated, and can be verified

only by proving its arithmetic. It is evidently plainer and more simple to arrange the plus and minus items separately. At first sight it would not seem to be important which side should be plus or which minus ; but custom has decided that the plus or debit side should be at the left hand, while the minus or credit side should be at the right hand, because the fact of debt always precedes the fact of its payment. Therefore an account in book-keeping has two sides, and is a comparative statement of items under a suitable title or head ; viz., —

DR.				JOHN BROWN.				CR.			
1882.				1882.							
Jan. 1	To goods sold him,	500	00	Jan. 5	By cash received from him,	200	00				
" 10	" goods sold him,	600		" 6	" goods bought from him,	400					
" 19	" cash paid him,	300		" 15	" goods bought from him,	800					
" 25	" goods sold him,	900		" 30	" cash received from him,	400					
		2,300				1,800					

The debit side is always at the left, and the credit side at the right hand, in all classes of accounts.

CHAPTER III.

SECTION 1. — Accounts Current.

12. The term "accounts current" in these pages is intended to include only such accounts as are genuine and literal debit and credit accounts in the sense of indebtedness. Accounts current, or running accounts, are kept with persons, firms, or corporations to whom we sell, or from whom we buy ; whom we employ, or by whom we are employed.

13. The result of an account is arrived at by a comparison of its two sides ; the balance of an account is the remainder left after subtracting the sum of the smaller side from the sum of the larger side. When the debit side is the larger, the remainder is said to be a debit balance ; when the credit side is the larger, the remainder is said to be a credit balance ; when the separate additions of the two sides respectively are equal sums, the account is said to be closed, all the transactions on either side having been settled.

14. It will be seen from the following example that the labor performed and articles delivered by ourselves upon an account current are placed upon its debit side, and that the labor employed and articles received by us on an account current are placed upon its credit side. The methods of stating other classes of accounts are similar to and derived from this form of personal accounts current, which will be seen as we progress.

15. The student will understand the following account by supposing himself to be a wheelwright and blacksmith, having business with Mr. Fox Adams, a farmer.

DR. (Delivered to him and owed to me.)				FOX ADAMS. (Received from him and owed to him.)				CR.	
1882.				1882.					
June 5	To shoeing 2 yoke of oxen,	4		June 3	By 10 bush. charcoal, @ .75,	7	50		
" 9	" repairing mow'g machine,	2	25	" 6	" 6 days' work in garden,	6			
" 16	" 1 horse-rake,	8		Aug. 10	" 47 bush. wheat. @ .90.	42	30		
July 7	" 1 wagon built to order,	45						55	80
" 15	" repairing ox-cart,	4	37	" 15	" cash to balance,	7	82		
		63	62			63	62		

We find upon Aug. 10 that the debit side amounts to \$63.62, while the sum of the credit side is \$55.80, thus showing a debit remainder, or balance, of \$7.82 due from Mr. Adams. This being paid by him in money on Aug. 15, the account is settled and closed.

16. When an account has been settled, the two sides are footed upon the same horizontal line, and the short cross-lines ruled as in the example, to indicate the addition; the double lines are drawn to prevent the inclusion of the figures above them with others which may follow beneath; a diagonal line is drawn across the vacant space when any is left on either side. Two pages opposite each other may be used when more space in which to write items is desired. The common ledger ruling is equivalent to two pages of the day-book narrowed and placed upon one page.

1. An account may be continued by entering new transactions below the double lines, and, when a page is full, by carrying the respective footings of each side to their proper sides upon a new page. Balances of account should not, as a general rule, be carried forward from page to page, as experience shows that this tends to complication. (*See Jonas Marshall's account.*)

2. It should be understood that Mr. Adams's own statement of this account would be headed with the name of the person with whom he was dealing, and that

the two sides would be reversed, his account showing credits corresponding to our debits, and debits corresponding to our credits.

3. It should be noticed that the debit side of accounts current denotes plus, or increase, while the credit side denotes minus, or decrease, of financial strength on the part of the owner of the account. We desire to emphasize this principle, as it is common to all the ORDINARY ACCOUNTS.

17. The following account with Jonas Marshall, a farmer, is an example of an account continued, and carried to a new page. This account has not been settled; but it has been found that there is a balance, or remainder, of \$14.39 due to Mr. Marshall on Dec. 31. This balance has been added to the debit side, and brought forward upon the credit side for a new account. The plan of bringing balances forward should be used only when the accounts of the two parties have been compared, and that of each person made to show the same debit and credit balances respectively on the same date. The method of settling accounts by bringing balances forward is sometimes used in small communities where money is scarce: it is really no settlement at all, and is a hinderance rather than a help in the transaction of business. It is also used by foreign bankers and merchants for correspondents at a distance, with whom settlements cannot otherwise be made. The only true way to settle accounts is to pay or receive pay for them.

18. The dates of year, month, and day should be clearly expressed on each page and on each side of the page of an account: any change in either should be plainly written, so as to avoid the necessity of turning back several pages to find dates of year or month.

The cents column is left blank in this book when a sum consists of dollars only; and in practice a horizontal dash, or two dots, are substituted for two ciphers, or the blank is unfilled, leaving the column clear for addition.

DR.				JONAS MARSHALL.				CR.			
1882.								1882.			
Nov. 10	To 5 yds. frocking, @ 1.00	5		Nov. 10	By 25 bush. potatoes, @ .50	12	50				
" "	" 9 yds. print, .12	1	08	" "	" 10 bush. onions, 1.00	10					
" "	" 30 yds. sheeting, .10	3		" "	" 8 bbls. apples, 2.00	16					
" 17	" 50 lbs. white sugar, .12	6		" 17	" 800 lbs. squashes, .02	12					
" "	" 150 lbs. brown sugar, .06	9		" "	" 40 lbs. butter, .19	7	60				
" "	" 10 gals. molasses, .31	3	10								
" 24	" 1 ox-yoke,	2									
" "	" 5 lbs. tea, .75	3	75								
	Amount to page 18,	32	93		Amount to page 18,	58	10				

DR.

JONAS MARSHALL.

CR.

1882.				1882.			
Nov.	To amount from page 17,	32	93	Nov.	By amount from page 17,	58	10
" 24	" 18 lbs. coffee, @ .20,	3	60				
" "	" 2 prs. kid shoes, 1.25,	2	50				
" "	" 1 pr. rubber overshoes,	1	18				
" "	" 1 pr. kip boots,	3	50				
		43	71				
Dec. 31	" bal. due him to new %,	14	39				
		58	10			58	10
				1882.			
				Dec. 31	By balance due him, old %.	14	39

19. Much ruling is unnecessary, and wastes time ; enough to designate footings is all that is essential in a book properly ruled. Regular spacing serves to guide the eye to the separate entries, and looks better than ruling, which, when necessary, should be neatly done by the aid of a ruler. The following is the same account with Jonas Marshall, but in a different form. Care must be taken in this form lest the debit items be put in the credit column, or *vice versa*. The debit column is still at the left, and the credit at the right. An entire ledger, in which items are stated in detail on each account, is often required in retail business. Either form of Marshall's account may be adopted for it.

JONAS MARSHALL.

DR.

CR.

1882.							
Nov. 10	To 5 yds. frocking.	@ 1.00	5				
" "	" 9 yds. print,	.12	1	08			
" "	" 30 yds. sheeting,	.10	3				
" "	By 25 bush. potatoes,	.50				12	50
" "	" 10 bush. onions,	1.00				10	
" "	" 8 bbls. apples,	2.00				16	
" 17	To 50 lbs. white sugar,	.12	6				
" "	" 150 lbs. brown sugar,	.06	9				
" "	" 10 gals. molasses,	.31	3	10			
" "	By 600 lbs. squashes,	.02				12	
" "	" 40 lbs. butter,	.19				7	60
" 24	To 1 ox-yoke,		2				
" "	" 5 lbs. Oolong tea,	.75	3	75			
" "	" 18 lbs. Java coffee,	.20	3	60			
" "	" 2 prs. kid shoes for wife,	1.25	2	50			
" "	" 1 pr. rubber overshoes,		1	18			
	Amounts carried forward to page 19,		40	21		58	10

JONAS MARSHALL.		DR.		CR.	
1882.					
Nov.	Amounts brought forward from page 18,	40	21	58	10
" 24	To 1 pr. kip boots,	3	50		
Dec. 31	" balance due him to new account,	43	71		
		14	39		
		58	10	58	10
1882.					
Dec. 31	By balance from old account,			14	30

20. Accounts current may be divided as follows : —

1. ACCOUNTS RECEIVABLE, which are those with parties who owe us, and from whom payment is expected ; and
2. ACCOUNTS PAYABLE, which are those with parties whom we owe, and expect to pay.

The following brief statement of this form will aid the student in remembering what classes of items are to be placed on the respective sides : —

Debtor.			Creditor.	
Delivered to others, and owed to us.	}	ACCOUNTS CURRENT.	{	Received from others, and owed by us.

SECTION 2. — Transfers of Credit between Personal Accounts Current.

21. When one person owes a debt to another, the creditor may cause it to be paid to a third person, and the third may transfer it to a fourth, and so on indefinitely, by means of a written order. If we assume that three *equal* debts exist between three persons (B owes G, G owes W, and W owes B), each person may pay his own debt and receive his own pay, without the use of money, by a transfer of credit between the parties through an order of one of the creditors upon his debtor, which is a substitute for money, as follows : —

	Ashby, Mass., Sept. 20, 1882.
	Mr. Frank White will please pay to David Gray.
	or order, nine dollars, and charge to my account.
	Valentine Brown.

Brown delivers this order to Gray, who indorses it by writing his name across the back, and delivers it to White, who accepts it by writing "accepted" and his name across the face; and each delivery settles one debt in the round of its course. Provided that each kept books of account, each one would charge it to his creditor to whom he delivers it, and credit it to his debtor from whom he receives it, as follows:—

Brown's Book.			
D. GRAY.	DR.	F. WHITE.	CR.
To my order on White in his favor,	9.00	By my order, in favor of Gray, on him,	9.00
Gray's Book.			
F. WHITE.	DR.	V. BROWN.	CR.
To Brown's order on him in my favor,	9.00	By his order on White in my favor,	9.00
White's Book.			
V. BROWN.	DR.	D. GRAY.	CR.
To his order on me in favor of Gray,	9.00	By Brown's order on me in his favor,	9.00

The same transfer could also be made by either of the other creditors' draft upon his debtor. The principle of transferring credits is at the basis of the banking business of the world, and by means of it vast sums are exchanged, but little real money being required to settle final differences between individual debts.

SECTION 3. — Examples for Practice.

22. The examples for practice are given under the various heads in order to test the student's knowledge of the several forms of accounts. After a careful consideration of a single transaction, or a series of transactions, he should be able to decide in what class of accounts they must be stated, and then write them out briefly and clearly in that form of account.

ACCOUNTS CURRENT.

Example 1.

23. This example consists of a series of transactions between the student and Charles Woodhouse, a retail dry-goods dealer in the country.

Nov. 9, 1882.—I have bought of C. Woodhouse 1 doz. handkerchiefs @ \$5; 12 yds. linen @ 35 cts.; 9 yds. print @ 14 cts.; and have sold him 30 bush. potatoes @ 60 cts.

Nov. 16, 1882. — I have sold him 10 cords rock maple @ \$5, and have bought of him 15 yds. black silk @ \$2; 7½ yds. black silk fringe @ 50 cts.; 1 pr. ladies' kid gloves @ \$1.25; 10 yds. white wool flannel @ 65 cts.

Nov. 23, 1882. — I have sold him 3 turkeys, 36 lbs., @ 20 cts.; 2 prs. chickens, 20 lbs., @ 15 cts.; 4 bbls. Baldwin apples @ \$3; 75 lbs. pumpkins @ 1½ cts. I have bought of him 7 yds. Scotch wool plaid @ \$1.25; 5 yds. bonnet ribbon @ \$1.12; and 2 scarfs @ \$1.50.

Nov. 30, 1882. — I have sold him 1 tub butter, 32 lbs., @ 28 cts.; and the balance of account is settled in money.

Required to know how much it is, and to whom it is due.

Example 2.

24. A series of transactions with Henry Caldwell, a retail grocer.

Jan. 11, 1882. — Bought of H. Caldwell 1 box starch, 12 lbs., @ 10 cts.; 1 box No. 1 soap, 72 lbs., @ 8 cts.; 1 box raisins @ \$3; 15 lbs. Oolong tea @ 95 cts.; 1 bag Java coffee, 18 lbs., @ 30 cts.

Jan. 18, 1882. — Sold H. Caldwell 100 bush. potatoes @ 57½ cts. Bought of him 15 gals. molasses @ 55 cts.; 1 keg for same, \$1.25; 100 lbs. granulated sugar @ 12 cts.; 1 bbl. brown sugar, 213 lbs., @ 10½ cts.; 4 lbs. ginger @ 12 cts.; 2 lbs. pepper @ 26 cts.

Jan. 25, 1882. — Sold him 4 tubs butter, 128 lbs., @ 26 cts. Bought of him 10 gals. kerosene oil @ 15 cts., and settled balance of account in money.

How much was it, and to whom was it due?

Example 3.

25. A series of transactions with Charles Blake, a country storekeeper.

May 3, 1882. — Bought of him 50 lbs. brown sugar @ 9 cts.; 10 lbs. Java coffee @ 35 cts.; and sold him five hams, 98 lbs., @ 16 cts.

May 10, 1882. — Sold him 37 bush. corn @ 85 cts.; 10 bush. wheat @ \$1.10; and bought of him 10 yds. print @ 13 cts.; 9 yds. gingham @ 30 cts.; 1 scythe and stone, \$1.25; 1 snath, 80 cts.

May 17, 1882. — Bought of him 1 white dinner set, \$18; 3 hoes @ 90 cts.; and sold him 40 lbs. butter @ 30 cts.; 26 doz. eggs @ 24 cts.

May 24, 1882. — Sold him 20 bush. potatoes @ 58 cts., and bought 3 palm-leaf hats @ 20 cts., and 1 pr. ankleties @ 90 cts.

May 31, 1882. — Bought of him 2 pitchforks @ 50 cts.; 3 rakes @ 30 cts. Sold him 1 quarter beef, 220 lbs., @ 8 cts.; 25 bush. oats @ 50 cts.

June 3, 1882. — Settled balance of account in money.

How much was it, and to whom was it due?

Example 4.

26. A series of transactions with Charles G. Frye, a hardware dealer.

June 3, 1882. — Bought of him 3 hoes @ 65 cts. ; 1 budding-knife, 75 cts. ; 1 spade, \$1.25.

June 5, 1882. — Bought 1 gong door-bell, \$1.50; knobs and butts for two doors, \$1.40; 24 sets curtain fixtures @ 50 cts. ; lead and tin for porch flashing, \$2.50; 3 doz. picture hooks @ 50 cts.

June 12, 1882. — Bought 3 brass study lamps @ \$4.50; 75 lbs. $\frac{1}{2}$ -inch lead pipe @ 11 cts. ; 100 pieces drain-pipe, each 2 ft. (3 in. in diameter), @ 16 cts ; 1 keg 4d. nails, 100 lbs., @ 5 cts. ; 4 mortise locks @ \$1.15.

June 15, 1882. — I bought 150 lbs. tarred sheathing-paper @ $1\frac{1}{2}$ cts.

June 30, 1882. — Paid the account in money.

How much was it?

SECTION 4. — Forms of Bills.

27. When merchandise is sold, a bill of items (an exact copy of the original entry) should be rendered to the purchaser, and ought to be examined by the receiver in order that he may know whether all the goods are properly delivered, prices correct, etc. A bill should also be given for services rendered. When a clerk or agent receives payment for a principal, he should subscribe his own name underneath that of his employer, and not simply make a cabalistic sign or initials in place of it, as is too often done at the present day.

Boston, Dec. 19, 1882.

Messrs. Stowell & Reed

Bought of WATSON, GUILD & CLARK.

<i>1 box macaroni, 23 lbs.,</i>	<i>@ .23</i>	<i>5</i>	<i>29</i>
<i>2 cartons vermicelli, 8 each, 16 lbs.,</i>	<i>.12½</i>	<i>2</i>	
<i>1 bbl. granulated sugar, 234 - 20 = 214 lbs.,</i>	<i>.10¾</i>	<i>23</i>	<i>01</i>
<i>1 half-chest Oolong tea, 54 - 14 = 40 lbs.,</i>	<i>1.00</i>	<i>40</i>	
<i>Received payment,</i>		<i>70</i>	<i>30</i>

Watson, Guild & Clark,

By F. J. Stuart.

Boston, Sept. 19, 1882.

Mr. Hugh Freeman } *For 10 tons white-ash coal, @ 6, \$60.00*
 To JAMES HARDIN & CO., Dr. } *Received payment,*
Ja's Hardin & Co.,
By F. J. Mason.

Newton, Jan. 1, 1882.

Mr. W. B. Kenworth

To M. J. RHEES, M.D., Dr.

For professional services from Nov. 19, 1881, to date, 9 visits, @ \$2, } \$19.00
One prescription, \$1, }

Received payment Jan. 7, 1882.

M. J. Rhees,
By W. R. Childs, Collector.

Albany, N.Y., Aug. 17, 1882.

Mrs. Emily Marion

To P. RICHMOND & PRATT, Dr.

1882.			
Aug. 10	To 1 No. 7 Cottage Range, with furniture, pipe and zinc, set up,	39	
	" 1 7-inch Flat-Heater, .50; 1 Steam Plate, .25,		75
	<i>Cr. ———</i>	39	75
Aug. 15	By 1 old Stove, 250 lbs., @ .001,	1	25
	<i>Received payment,</i>	38	50

P. Richmond & Pratt.

28. STATEMENT OF AN ACCOUNT, WITH ITEMS.

MR. TIMOTHY WILSON, STATIONER,

IN ACCOUNT WITH

L. SPRAGUE & CO., DRY-GOODS DEALERS, DR.

1882.

Oct. 1	To 1 piece Madras handkerchiefs,		5						
" "	" 9 yds. merino flannel,	@ .75	6	75					
" "	" 12 yds. white linen,	.33½	4						
" "	" 8 yds. French pique.	.37½	3		18	75			
" 4	" 2½ yds. silk serge,	.37½		94					
" "	" 8 yds. bleached cotton,	.11		88					
" "	" 2 opera dot silk ties,	1.00	2						
" "	" 2 prs. twilled-cotton drawers,	.83½	1	67					
" "	" 6 yds. calico cretonne,	.25	1	50					
" "	" 8 yds. gingham,	.11½		92	7	91			
" 11	" 14½ yds. curtain cambric,	.33½	4	83					
" "	" 2 damask table-covers,	.66½	1	33					
" "	" 7 yds. check muslin,	.37½	2	62					
" "	" 6 yds. linen drilling,	.25	1	50					
" "	" 4 lbs. worsted crewels,	.90	3	60	13	88	40	54	
— CR. —									
Oct. 2	By 1 day-book, made to order,		4						
" "	" 1 cash-book, made to order,		4						
" "	" 1 ledger, made to order,		6		14				
" 5	" 2 doz. lead-pencils,	.50	1						
" "	" 1 gross steel pens,		1	25					
" "	" 1 ream letter-paper,		3						
" "	" 1 ream printed bill-heads,		4		9	25	23	25	
	Balance due L. Sprague & Co.,						17	29	

LEOMINSTER, Oct. 15, 1882.

CHAPTER IV.

SECTION 1. — Cash Account.

29. The cash account is a statement of money received, of money paid out, and of the remainder left on hand. We have seen that in accounts current the amounts delivered are placed upon the debit side, and the amounts received are placed upon the credit side. This arrangement is reversed in the cash account, and

All moneys received are placed upon its debit side ;

All moneys paid out are placed upon its credit side.

30. The explanation of this is, that cash, or money, is an item of personal property available for its face value; the title of the account represents the owner, and is made by analogy to stand in the same relative position that he does toward the persons from whom he receives or to whom he pays money. Analogy may be said to be reasoning, not argumentation: it employs methods and illustrations whose force is felt sooner than understood. It is inference from the resemblance to a thing more known, of a thing less known, that a quality of the former also exists in the latter. We say, "John is brother to Alice, therefore Alice is sister to John;" that is, their relation to each other is that of brother and sister in the literal sense; and the inference is logical.

Parallel reasoning in book-keeping would be thus: Provided we pay out money to George, we say, "George is debtor to Cash, therefore Cash is creditor by George;" that is, the relation of the two accounts to each other is that of debtor and creditor, the one in the literal and the other in an analogous sense; and the inference is analogical.

31. If the cash account begins with a sum on hand, that sum must be placed on

Debit.
\$50
25
<hr/>
\$75

the debit side of that account. When the account is accurately kept, the excess of the sum of the debit side above the sum of the credit side will be exactly equal to the actual sum of money on hand. For example: if we have on hand \$50, and receive \$25, and pay out \$60, we shall have left a balance of \$15. When no money is on hand, the two sides should be exactly equal. When cash trans-

Credit.
\$60
15
<hr/>
\$75

actions are numerous, the money and account should be balanced each day; *i.e.*, it should be proved that the amount shown by the account as a remainder is exactly equal to the actual sum on hand. Below is a short summary of the form of the account.

Debtor.
Money received by us.

CASH ACCOUNT.

Creditor.
Money delivered to others.

32. It is obvious that a debit to the cash account denotes increase, while a credit to it denotes decrease, of financial strength on the part of its owner. A debit to the cash account of a sum of money received is equivalent to a credit to the account from which it comes. A credit to the cash account of a sum of money paid out is equivalent to a debit to the account upon which it is paid. That is to say: the entry of "Cash Dr. to R. Pendleton on $\frac{1}{2}$, \$20," is in reality a credit to Pendleton; and the entry of "Cash Cr. by C. Green on $\frac{1}{2}$, \$17," is the same thing as a charge to Green.

CASH ACCOUNT.

DR.	(Money received.)	CASH.	(Money paid out.)	CR.	
1882.			1882.		
Jan. 1	To amount on hand,	50	Jan. 9	By 1 sleigh (bought),	20
" 5	" Ralph Pendleton, on %,	20	" 10	" 10 gals. molasses, @ .42,	4 20
" 9	" milk (sold),	14 84	" 10	" 58 lbs. sugar, .10,	5 80
			" 15	" shoeing horse,	2
	Total receipts,	84.84	" 17	" P. Welch, wages to date,	8
	Less on hand 1st,	50.	" 21	" note Dec. 18, '81, 1 mo.,	20
	Net receipts of month,	34.84		Total paid out,	60
			" 31	Balance to Feb. 1,	24 84
		84 84			84 84
Feb. 1	To balance from January,	24 84	Feb. 9	By discount J. White's note (prepaid),	20
" 9	" J. White's note paid,	40	" 11	" C. Green, on %,	17
" 11	" F. Brown's " "	50	" 18	" 3 yds. cloth, @ 4.	12
" 11	" int. on B.'s note overdue,	25	" 18	" 30 yds. sheeting, .08	2 40
			" 18	" 1 lb. tea,	75
	Total receipts,	115.09		Total paid out,	32
	Less on hand 1st,	24.84	" 28	Balance on hand,	82 74
	Net receipts of month,	90.25			115 09
		115 09			
Mar. 1	To balance on hand,	82 74			

33. The same items as above are also stated below in another form of ruling, which is often convenient for pocket cash memoranda. It is the same in substance as the second form given under the head of accounts current.

1882.	JANUARY, 1882.—MONEY.	RECEIVED.	PAID.
Jan. 1	To amount on hand,	50	
" 5	" Ralph Pendleton, on %,	20	
" 9	By 1 sleigh (bought),		20
" 9	To milk (sold),	14 84	
" 10	By 10 gals. molasses (bought), @ .42		4 20
" 10	" 58 lbs. sugar, .10		5 80
" 15	" shoeing horse,		2
" 17	" P. Welch, wages in full to date inclusive,		8
	Amounts carried forward,	84 84	40

1882.	JANUARY, 1882. — MONEY.	RECEIVED.		PAID.	
Jan. 21	Amounts brought over, By my note of Dec. 18, 1881, 1 month, Total paid out, “ balance to 1st February,	84	84	40 20 00 24	 84
		84	84	84	84
	FEBRUARY, 1882. — MONEY.				
Feb. 1	To balance from January,	24	84		
“ 9	“ note of J. White (paid in),	40			
“ 9	By discount on J. White's note for prepayment,				20
“ 11	“ C. Green, on %,			17	
“ 11	To note of F. Brown (paid in),	50			
“ 11	“ interest on Brown's note, overdue,		25		
“ 18	By 3 yds. broadcloth (bought),			12	
“ 18	“ 30 yds. sheeting			2	40
“ 18	“ 1 lb. tea				75
	Total paid out,			32	35
“ 28	“ balance on hand,			82	74
		115	00	115	09
	MARCH, 1882. — MONEY.				
Mar. 1	To balance from February,	82	74		

34. The rigid and accurate keeping of the cash account is so closely connected with the economical management of money matters, that the following quotation is made at the risk of seeming to depart from the subject:—

“Economy, whether public or private, means the wise management of labor; and it means it mainly in three senses,—First, *applying* your labor rationally; secondly, *preserving* its produce carefully; lastly, *distributing* its produce seasonably.” — JOHN RUSKIN, *Political Economy of Art*.

SECTION 2. — Examples for Practice (Cash Accounts).

Example 1.

35. This account is supposed to be that of a young man receiving a salary of \$600 per year, or \$50 per month. It shows how money can be saved by cutting off

superfluous and unnecessary expenses, while being liberal in a wise direction, and providing amply for actual personal wants. The account covers the period of six months.

Cash on hand July 1, 1882, \$49.54. July 2, bought a straw hat and thin coat for \$3.25. July 2, paid 50 cts. for fruit. July 29, paid 4 weeks' board @ \$4. July 31, rec'd 1 month's pay, \$50. Aug. 9, paid for handkerchiefs and neckties \$4.25. Aug. 15, paid for 6 shirts and $\frac{1}{2}$ doz. prs. socks \$15. Aug. 26, paid 4 weeks' board @ \$4. Aug. 31, rec'd 1 month's pay @ \$50. Sept. 15, paid for 1 cassimere suit \$27. Sept. 30, paid 5 weeks' board @ \$4. Sept. 30, rec'd 1 month's pay, \$50. Oct. 1, paid 1 quarter's pew-rent, \$5; paid subscription to home missions, \$10. Oct. 9, paid for woollen under-clothing \$12. Oct. 12, paid for 1 pr. heavy winter boots \$6.50; for 1 hat, \$4. Oct. 28, paid 4 weeks' board @ \$4. Oct. 29, paid for supplies for a poor family \$6. Oct. 31, rec'd 1 month's pay, \$50. Nov. 2, paid for 1 pr. woollen gloves \$1.50. Nov. 20, paid for Thanksgiving present, a shawl for mother, \$10. Nov. 25, paid for 4 weeks' board @ \$4. Nov. 30, rec'd 1 month's pay, \$50. Dec. 22, paid for Christmas gift, a set of furs for sister, \$7. Dec. 24, paid subscription to foreign missions, \$10. Dec. 30, rec'd 1 month's pay, \$50. Dec. 31, paid for pew-rent for 1 quarter \$5.

Required amounts received and expended, also balances on first of each month, and the balance on hand at close of the account; also the amount saved in excess of the sum at beginning.

Example 2.

36. This account is supposed to be that of the head of a family. The numerous items of such an expenditure are summarized under general heads each month.

July 1, 1882. Cash on hand, \$390.47. July 2, rec'd dividends for 3 months on various stocks, \$819.67. Paid out in July for books and papers \$7.25; for clothing, \$67.28; for church and charity, \$54.19; for doctor and medicine, \$15; for fares, \$18.50; for food, \$56; for furniture, \$48.38; for fuel, \$18.75; for wife and children (pocket-money), \$30.62; for rent, \$40; for services, \$12. July 31, rec'd salary, \$208.33. Paid out in August for books and papers \$3.19; for clothing, \$24.89; for church and charity, \$11.48; for fares, \$15.69; for food, \$64.13; for furniture, \$68.03; for wife and children, \$45.94; for rent, \$40; for service, \$15. Aug. 31, rec'd salary, \$208.33. Paid out in September for food, \$31.59; for fuel and light, \$51.50; for fares, \$6.20; for clothing, \$39.61; for church and charity, \$14; for furniture, \$16; for wife and children, \$15.44; for rent, \$40; for services, \$18. Sept. 30, rec'd salary, \$208.33. Oct. 1, rec'd stock and bond dividends, \$815; rec'd interest on call loans, \$15.

Required amounts received and expended, and balances at close of each month and at close of the account.

Example 3.

37. This account is that of a young girl attending a boarding-school, showing how she expended her pocket-money.

Oct. 1, balance on hand, \$3.01. Oct. 4, paid car-fares, 40 cts.; contributed to Tract Society 10 cts.; contributed to Sunday school 1 ct. Oct. 7, for stamps, 48 cts.; velvet, 37 cts. Oct. 25, rec'd from father \$12; paid for cuffs and collars \$1.90; for thread, needles, and elastic, 73 cts.; for sleeve-studs, \$1; for gloves, \$1.10; for jet clasp, \$1.75; for note-paper, \$1; to blind man, 6 cts. Nov. 1, paid to a poor man who had lost both hands 30 cts.; for scissors for wax flowers, 50 cts.; for apples, 35 cts.; for elastic bands for pocket-book, 10 cts.; for jujube paste, 15 cts. Nov. 9, rec'd from father \$6; paid for stationery 68 cts.; for lessons in wax flowers, \$5.75; for mending pin, 50 cts.; for a photograph of Dickens, 15 cts.; for a pickled lime, 1 ct.; paid express on trunk, 35 cts. Dec. 1, rec'd from father \$5; paid for cachous 25 cts.; for frame for photograph, 25 cts.; for muff-cord, 20 cts.; for 1 oz. worsted, 25 cts.; for crochet-needles, 20 cts.; for washing, 96 cts.; for Sunday-school contribution, 20 cts.; for hairpins, 25 cts.; for tatting-shuttle, 15 cts.; for tintypes, 25 cts.

Required amounts received and expended, and balances at beginning of each month and at end of the account.


Example 4.

38. This account is that of the same young lady for the month preceding her graduation. It shows how the desire for small wares and finery increases when money is liberally supplied.

May 1, balance on hand, \$1.23; rec'd from father \$75; paid for silk for dress \$45; for veil, 55 cts.; for 2 tickets to Dr. Lord's lectures, \$3; for skirt, \$1.50; for calico, \$2.50; for brush and comb, \$1.50; for braid and buttons, 30 cts.; for soap, 25 cts.; for caudy, 48 cts.; washing, \$1; lemons, 12 cts.; flannel, \$4; gloves, \$4.10; materials for fancy bag, \$2.55; communion contribution, 25 cts.; tooth-powder, 50 cts.; to an organ-grinder, 10 cts. May 15, rec'd from father \$25; paid for History of the Bible \$5; for collars, \$1.50; stamping skirts, \$1.80; washing, \$3.75. May 20, rec'd from father \$40; paid dressmaker's bill, \$45.91; for silk, \$2.34; lessons at riding-school, \$2.50; for pickles, 45 cts.; maple-sugar, 30 cts.; for city missions, \$1; for horse-back ride, \$3; to a lame soldier, 15 cts.; for parasol, \$3.75; braid, \$1.20; pique for dress, \$9; trimmings for same, \$10; linen, \$1.35; slippers, \$1.75; opera tickets, \$4. May 28, rec'd from father \$50; paid for hat \$4.50; for hat trimmings, \$14.35; for white suit, \$13.75; sleeve-protectors, 25 cts.; slippers, \$3.75; for a sash, \$3.38; belt ribbon, 75 cts.; for bracelets, \$1.50; for fixing sash, 75 cts.; for hair and net, \$12; for making muslin skirt, \$5.08. Rec'd from father, May 30, \$50.

Required amount received and expended and balance on hand.


SECTION 3. — Forms of Receipts for Money.

	\$100.	DENVER, May 17, 1882.
	RECEIVED OF <i>Sidney, Stone & Patten</i>	
	_____ One Hundred _____ $\frac{x}{100}$ Dollars	
	<i>on account of</i> <i>Charles H. Harrison & Co.,</i> <i>By W B Smith</i>	

PHILIP B. LOW & CO.	\$142.83.	ST. LOUIS, Oct. 12, 1882.
	Received of William Wallace & Brother	
	One Hundred and Forty-two and $\frac{83}{100}$ DOLLARS	
	in settlement of bills of Sept. 5th and 19th. Philip B. Low & Co., By Harry Harbenson.	

\$25.	Waltham, May 25, 1882.
Received from Robert Webster, twenty-five dollars for one month's rent of house No. 541 West Newton Street, to date.	
R. H. Parker.	

Smith & Spencer.	\$500.	CHICAGO, Feb. 25, 1882.
	Received of Henry P. Carmody & Co.	
	five hundred	$\frac{x}{100}$ Dollars
	for margin on purchase of 10,000 bushels of May wheat, at \$1.26.	
	Smith & Spencer.	

	\$75.	SAN FRANCISCO, October 19, 1882
	Received of William Thompson	
	seventy-five	$\frac{x}{100}$ Dollars
	in full of all demands to date	
	Benjamin Gillis.	

A receipt in full of all demands is evidence of a compromise and mutual settlement of all the rights of the parties.

SECTION 4. — Treasurer's Cash Accounts.

39. There are many relations in which a person may receive money belonging to others to be expended in trust for a specific purpose; thus, a person may be steward or treasurer for a club, a corporation, a town, county, or State, the authorized agent of a person or firm, the administrator or executor of a will, the guardian of minor children or an insane person, or the trustee or assignee of an estate: and it may possibly become the duty of the student, in maturer years, to receive and expend money in some such capacity.

40. The treasurer of such funds should always debit himself with the sums which he receives, and credit himself with the sums which he pays out. The treasurer's cash account is the same in principle and form as the ordinary cash account, except

that it is headed with the treasurer's name, together with that of the fund to which it relates, instead of the word "cash" alone. The form of the treasurer's cash-book would be similar to the following: viz., —

Receipts and Expenses of a Dinner and Entertainment to Distinguished Travellers.

DR. HENRY MILTON, TREAS'R, IN CASH ACC'T WITH THE STRANGERS' CLUB. CR.

1882.				1882.			
Oct. 16	To receipts for 240 tickets, @ 15.	3,600	00	Oct. 20	Paid hotel for dinner,	3,084	
					" for board of guests,	162	37
					" for carriages,	09	50
					Total hotel bills,	3,315	87
					Paid printing and postage,	70	32
					" railroad fares,	75	
					" com'tee's expenses,	85	59
					Total expended,	3,546	78
					Balance in treasury,	53	22
		3,600				3,600	

NEW YORK, Oct. 25, 1882.

E. & O. Ex.,

H. MILTON,

TREASURER.

Such accounts should be accompanied with vouchers, to which they may refer by numbers, letters, dates, names, or otherwise.

CHAPTER V.

SECTION 1. — Notes Receivable.

41. Notes Receivable are promissory notes, acceptances, or written promises to pay, signed by other people, and belonging to ourselves. The account includes all such papers which we hold, and is a statement of amounts received, amounts cancelled, and the remainder on hand. Upon the debit side are entered the amounts of other persons' notes received; when they are cancelled or surrendered they are entered upon the credit side. The excess of the sum of the debit side above the sum of the credit side should be exactly equal to the actual sum of other persons' notes on hand.

42. It will be seen that the Notes Receivable account is kept in the same form as the Cash account for reasons similar to those given under that head. The form is derived by analogy from Accounts Current, and the title is used to avoid opening a separate account with each note we hold: thus, if John Smith gives us his note to settle his account, J. Smith is creditor by Notes Receivable, and therefore the Notes Receivable account is debtor to J. Smith.

43. The notes of other persons are often received in settlement of their accounts current. If we assume that John Smith owes us \$100 upon an account current, which he settles by giving his note, payable in the future, the note is credited to his account, which it closes. But his indebtedness to us must not be lost sight of; for it still exists in the form of a note, and therefore must be placed upon the debit side of the Notes Receivable account. The original records of this transaction would be equivalent to the following:—

NOTES RECEIVABLE.	DR.	JOHN SMITH.	CR.
To John Smith's note received,	\$100	By his note received on his %,	\$100

A note is usually paid in money; and, when the note is given up in exchange for the money received from its signer, the forms of record would be as follows: viz.,—

CASH.	DR.	NOTES RECEIVABLE.	CR.
To money received for J. Smith's note,	\$100	By J. Smith's note, delivered to him,	\$100

But as cash transactions are entered on the cash-book only, the form of the debit side of that book, which amounts to the same thing, would be adopted for the record of the last transaction.

44. The ledger form of the Notes Receivable account is as stated below. Like the preceding Ordinary accounts, a debit to it denotes increase, while a credit to it denotes decrease, of financial ability or strength on the part of its owner.

DR.		(Other persons' notes received.)		NOTES RECEIVABLE.		(Other persons' notes disposed of)		CR.	
1882.				1883.					
Nov. 6	To White, Nov. 6, 3 mos.	40	00	Feb. 9	By cash, White, note paid	40	00		
Dec. 8	“ Brown, “ 19, 30 days	50		“ 12	“ “ Green, “ “	75			
1883.									
Jan. 3	“ Black, Dec. 18, 4 mos.	62							
“ 9	“ Green, “ 30, 60 days	75							

The following brief form will aid the memory:—

Debtor.		Creditor.
Other persons' notes received.	} NOTES RECEIVABLE. {	Other persons' notes disposed of.

SECTION 2. — Examples for Practice.

Example 1.

45. Jan. 1, 1882. I have on hand notes as follows: viz., Ross, \$2,500; Harding, \$700; Paddock, \$200; Parker, \$5,000; Jordan, \$600; Saylor, \$500; Brown, \$100; Stewart, \$1,000; Bryant, \$200; Whitman, \$1,200; Banks, \$1,000; Grafton, \$1,000; Guild, \$5,000; and receive, Jan. 8, Howe, \$2,100; Cutler, \$300; Briggs, \$2,200; Wadley, \$6,000; Leeds, \$200. The notes are paid in the following order: viz., In January, — 19th, Jordan; 21st, Bryant; 24th, Banks; 31st, Briggs; in February, — 18th, Ross; 23d, Harding; 25th, Paddock; 28th, Howe.

Required a formal statement of the account, and the balances of notes on hand at close of January and at close of February.

Example 2.

46. July 1, 1882. I have on hand notes as follows: Goodwin, \$60; Doolittle, \$90; Vinson, \$50. I receive, July 10, notes: viz., Loring, \$50; Crocker, \$75; Potter, \$25; Fowle, \$30. July 20, Doolittle pays his note; July 25, Loring pays \$25 on his note. July 27, I receive notes: viz., Clark, \$100; Boyd, \$150; Lovett, \$95. Aug. 9, Goodwin pays his note; Aug. 15, Vinson pays his note; Aug. 25, I receive Seaver's note for \$500; Aug. 31, I receive Whitney's note for \$900; Sept. 1, Loring pays balance of his note; Sept. 10, Crocker pays his note; Sept. 15, I receive Calder's note for \$87; Sept. 25, Boyd pays \$100 on his note; Sept. 28, Clark pays his note.

Required a formal statement of the account, and of the balances of the notes, at close of July, August and September, respectively. The remainders of notes partially paid should be shown, and an exhibit made of the whole notes and parts of notes which make up the balances for each month.

SECTION 3. — Forms of Notes and Drafts.

A Due Bill	{	\$20.	GORHAM, ME., March 29, 1882.
		Due to ELIJAH GIBBS, for value received, twenty dollars in goods from my store.	WM. BROOKS.

The above due bill contains no promise to pay, and is a mere acknowledgment of a debt.

A Produce Note . .	{	\$30.	Coös, N.H., March 17, 1882.
		For value received I promise to pay ASAHIEL SIDNEY thirty dollars in hay from my barn.	FREDERIC MCINTOSH.

Neither of the foregoing is negotiable, because not payable in money, nor to bearer, nor to order; but they may be *assigned* by a writing on the back, as follows:—

"I hereby assign my right in the within to M. LYON for value received.

"A. SIDNEY."

Borrowed Money: Due Bill.	{	\$100.	ST. ALBANS, VT., March 18, 1882.
		Borrowed and received of A. D. STOUGHTON one hundred dollars, which I promise to pay on demand with interest.	
			JACOB BELL.

Demand Note with Interest.	{	\$400.	PITTSBURG, PENN., April 19, 1882.
		On demand, we promise to pay to ASAPH JACOBY, or order, with interest, four hundred dollars, value received, without defalcation or discount.	
			MELZAR & WHEELER.

Demand Note without Interest.	{	\$200.	ST. PAUL, MINN., July 19, 1882.
		On demand, I promise to pay to JOSIAH H. PATTEN, or order, two hundred dollars, value received.	
			CLAUDIUS B. CHASE.

Note on Time with- out Interest.	{	\$300.	NEW HAVEN, CONN., April 19, 1882.
		Four months after date we promise to pay to the order of KIMBERLY & STODDARD three hundred dollars, value received.	
			DEWELL & BUSHNELL.

A Sight Draft. . .	{	\$500.	NEWARK, N.J., March 8, 1882.
		At sight, pay to the order of C. M. AMOS five hundred dollars, value received, and charge to account of your obedient servants, To Messrs. BADGER & BAKER, { Amesbury, Mass. }	
			MURPHY & Co.

A draft is an order drawn by a creditor upon his debtor, and is of no value unless it is accepted by the person upon whom it is drawn, but it may be protested for non-acceptance.

Foreign Exchange at Sight.	{	EXCHANGE FOR \$5,000.	ALEXANDRIA, EGYPT, May 5, 1880.
		At sight of this first of exchange (second and third of same tenor and date unpaid), pay to the order of DUFOUR & CIE five thousand dollars, value received, and place the same to account of To WM. H. VANDERBILT, { New York, U.S.A. }	
			Your obedient servant, HENRY H. GORRINGE.

Foreign Exchange on Demand.	{	<u>KIDDER, PEABODY & CO., BOSTON, MASS., U. S. A.</u>	
		£11/19/9 St'g.	BOSTON, March 1, 1882.
		On demand of this first of exchange (second unpaid), pay to the order of FRANK E. DOULTON eleven pounds 19/9 sterling, value received, which charge to account of	
		Messrs. BARING BROTHERS & Co., } London, England.	KIDDER, PEABODY & Co.

Drafts for remittance by sea to foreign countries are drawn in duplicate or triplicate, in order to be sent by different mails, because of the risk of loss. The following are equivalent forms:—

A Note.

\$ <u>1147.29</u>	Buston, <u>April 19, 1882</u>
<u>Four months</u> after date <u>we</u> promise to pay to the order of <u>Tappan & Lamb at the Merchants National Bank</u> <u>eleven hundred and forty seven</u> ²⁹ / ₁₀₀ Dollars, value received.	
<u>Frank E. Doulton</u>	
No. <u>841</u>	Due <u>Aug 19/82</u>

An Accepted Draft

\$ <u>1147.29</u>	New York, <u>April 19, 1882</u>
<u>Four months</u> after date pay to the order of <u>Carlton, King & Co.</u> <u>eleven hundred and forty seven</u> ²⁹ / ₁₀₀ Dollars. value received, and charge to account of	
To <u>Merchant Dalton & Co.</u> <u>Boston</u>	

47. When Tappan & Lamb have indorsed the note by writing their signature across its back, it becomes a negotiable note. If they wished to avoid indorsers' liability, they would write the words "without recourse to us" over their signature; if they wished to transfer it to a third party, they would indorse it to the order of that party; as, "Pay to the order of Carlton, King & Co.," Tappan & Lamb.

The draft becomes a negotiable paper when Grant, Dalton & Co., have accepted it by writing the word "Accepted," together with their signature, across its face. A *sight* draft must also have the *date* of acceptance written across its face, together with the signature.

48. It will be seen, that when Tappan & Lamb have indorsed the note to the order of Carlton, King & Co., and when Grant, Dalton & Co. have accepted the draft by writing across its face the words "Accepted, payable at the Merchants' National Bank," together with their signature, the two papers are precisely the same in effect. Each document will then contain the obligation of Grant, Dalton & Co. to pay the same sum of money, at the same time and place, by order of Tappan & Lamb, to a third party, Carlton, King & Co. This subject will be more fully treated under the head of promissory notes, further on. The merchant makes no account of a draft drawn by himself until some use of it has been made by negotiation. When a note or check is turned over to be indorsed, the left end should be at the top.

CHAPTER VI.

SECTION 1. — Notes Payable.

49. Notes Payable are promissory notes, acceptances, or written promises to pay, signed by ourselves, and binding us to pay at a future time, which are held by and belong to other persons. The account is a statement of all our own written promises to pay, held by other persons, of amounts issued, amounts redeemed, and remainder outstanding.

50. Our own notes, when issued, are placed upon the credit side of this account: they are entered on the debit side when they are paid or redeemed. The excess of the sum of the credit side above the sum of the debit side is the remainder unpaid or outstanding. The title is used to avoid opening a separate account with each note, and the form is derived by analogy from that of Accounts Current.

51. Notes payable are usually given to settle and close accounts. If we assume that we owe Thomas Brown \$500 on account, we may settle, and close the account, by giving him our note. Brown becomes debtor to Notes Payable, and therefore Notes Payable account is creditor by Brown. His account is settled and closed, but our indebtedness to him must not be forgotten, for it still exists in the shape of our note, and must therefore be placed on the credit side of the Notes Payable account. The forms of record are as follows: viz., —

THOMAS BROWN.	DR.	NOTES PAYABLE.	CR.
To my note issued to him,	\$500 00	By my note issued to T. Brown,	\$500 00

The note would, when due, have to be paid, or taken up, or redeemed with money to be given for it to its holder. The records would then be the following: —

NOTES PAYABLE.	DR.	CASH.	CR.
To my note to Thomas Brown redeemed,	\$500 00	By money paid out for my note to Thomas Brown,	\$500 00

52. But as this last transaction would belong only upon the credit side of the cash-book, the form of that side, which amounts to the same thing when posted to the ledger, would ordinarily be adopted.

53. The ledger form of the Notes Payable account, like the preceding accounts, embodies increase of strength on its debit side, and decrease on its credit side. A debit to it extinguishes a debt, which constitutes an increase of strength.

DR.		(Our own notes redeemed.)		NOTES PAYABLE.		(Our own notes issued)		CR.	
1882.				1881.					
Jan. 21	To cash paid Ward, note,	20	00	Dec. 9	By Ward, Nov. 18, 2 mos.,	20	00		
" 25	" " " Lamb, "	40		" 15	" Lamb, " 22, 2 "	40			
			.	" 19	" Reed, Dec. 8, 4 "	50			

54. When the notes used in any business are numerous, the Note account may be advantageously divided into months, as in the following example, taking care to enter each note under the head of the month when it becomes due.

The form, in brief, is as follows: viz., —

Debtor.		NOTES PAYABLE.		Creditor.
Our own notes redeemed.	}		}	Our own notes issued.

DR.

NOTES PAYABLE.

CR.

January, 1880.							
1880.				1879.			
Jan. 6	To cash p'd W. Luke, note	625	19	July 9	By W. Brown, note, 6 mos.	1,487	25
" 12	" " " W. Brown, "	1,487	25	" 14	" C. Stone, 6 "	351	34
" 17	" " " C. Stone, "	351	34	Sept. 3	" W. Luke, 4 "	625	19
		2,463	78			2,403	78
February, 1880.							
1880.				1879.			
Feb. 3	To cash p'd W. Shaw, note	227	50	Aug. 9	By F. Stuart, 6 mos.,	127	50
" 12	" " " F. Stuart, "	127	50	" 12	" D. Ross, 6 "	419	17
" 15	" " " D. Ross, "	419	17	Sept. 30	" W. Shaw, 4 "	227	50
		774	17			774	17
March, 1880.							
1880.				1879.			
Mar. 6	To cash p'd D. Harvey, note	314	39	Sept. 3	By D. Harvey, 6 mos.,	314	39
" 9	" " " R. Webster, "	219	27	" 6	" R. Webster, 6 "	219	27
" 22	" " " P. Choate, "	436	47	Dec. 19	" P. Choate, 3 "	436	47
		970	13			970	13

Printed note-book forms, describing the essential features of each note in detail, are important in any business using many notes. They are given on pages 40 and 41.

SECTION 2. — Examples for Practice.

Example 1.

55. Jan. 1, 1882. My notes unredeemed are outstanding as follows: viz., to Rindge, \$2,000; Cooper, \$5,000; Marsh, \$5,000; Hall, \$5,000. And I issue in January my notes to Robbins, \$600; Towne, \$1,300; and in February to Goss, \$600; Clay, \$1,500; Baker, \$400. I pay as follows: January, Cooper; February, Rindge, Hall, Marsh; March, Robbins, Goss, and Clay.

Required amounts outstanding at close of January, February, and March, respectively.

Example 2.

56. The following notes, signed by myself, of the date, term, and amount set against each, were issued to the parties named:—

Allison, Jan. 9, 60 days, \$427.39; Clafin, Jan. 1, 4 months, \$1,854.62; Saville, Jan. 5, 90 days, \$228.46; Somes, March 4, 2 months, \$173.59; Hurd, April 1, 4 months, \$1,554.33; Hutchins, Feb. 9, 6 months, \$436.28; Dane, Feb. 28, 6 months, \$625; Grover, May 1, 4 months, \$1,000; Hooper, April 29, 4 months, \$484.42; Barrett, March 1, 6 months, \$319.58; Newton, March 28, 3 months, \$875; Beal, Feb. 27, 60 days, \$925; Bartlett, May 5, 6 months, \$312.19; Tozier, Aug. 18, 6 months, \$456.78; Farrington, Sept. 1, 4 months, \$219.75; Dana, Oct. 19, 6 months, \$376.42; Farrar, Nov. 9, 4 months, \$617.82; Hyde, Dec. 5, 6 months, \$854.15; Stearns, June 5, 6 months, \$520; Crosby, July 10, 4 months, \$605.07; Raymond, July 15, 6 months, \$485.19; Young, Aug. 19, 6 months, \$307.40; Moody, Aug. 10, 4 months, \$614.37; Peirce, Sept. 9, 6 months, \$854.47.

Three days of grace are to be counted on each note, and it is to be placed under the head of the month when it becomes due. Required a statement of them in the form of the Notes Payable account, divided into months, and showing the exact date when each expires and is to be paid. It will be seen that the notes dated in the latter part of the year fall due in the second year. Current dates of the present year and the following one may be used. When the time of a note is stated in days, the actual number of days, exclusive of the date, is counted; when stated in months, calendar months are counted.

SECTION 3. — Forms of Note-Books.

57. NOTE-RECEIVABLE BOOK.

[Left-hand page.]

MAKER.	INDORSER, or on what Account.	Where Payable.	DATE.	TIME.	When Due	AMOUNT.		Remarks.
Due in	November, 1882.							
L. Winsor	G. H. Kuhn	Providence, R.I.	May 9, '82	6 mos.	9/12	2,500		Nov. 12, paid
Amos Small & Co.	Account Current	Concord, N.H.	July 14, '82	4 mos.	14/17	409	21	" 17, "
Bond & Corey	S. W. Corey	Plymouth, Mass.	Aug. 14, '82	3 mos.	14/17	2,609	20	" 17, "
Chase & Loring	L. H. Beattie & Son	1st Nat. Bank, N.Y.	Sept. 10, '82	2 mos.	10/13	2,807	54	" 13, "
Due in	January, 1883.							
Dodge, Cook & Co	Merchandise	Salem, Mass.	Nov. 14, '82	2 mos.	14/17	474	66	
Due in	March, 1883.							
Booth & Brown	E. J. Brown & Co.	New Bedford, Mass.	Nov. 21, '82	4 mos.	21/24	251	87	
Gardner & Wylie	Account Current	Bangor, Me.	" 15, '82	4 mos.	15/18	618	91	
R. Hill & Sons	F. J. Stuart	Dover, N.H.	Sept. 9, '82	6 mos.	9/12	400		

58. NOTE-PAYABLE BOOK.

[Right-hand page.]

To Whom Given.	For what Account.	Where Payable.	DATE.	TIME.	When Due.	AMOUNT.		Remarks
Due in Wm. Stearns & Co.	November, 1882. Account Current	Traders' Bank	July 9, '82	4 mos.	9/12	871	49	Nov. 12, paid.
Due in W. F. Weld & Co. Pennoyer & Co.	December, 1882. Coffee Sugar	Granite Bank State Bank	June 12, '82 Aug. 5, '82	6 mos. 4 mos.	12/15 5/8	1,900 504	51	" 15, " " 8, "
Due in W. F. Weld & Co. N. Beggio & Co.	March, 1883. Account Current	Traders' Bank "	Nov. 2, '82 " 15, '82	4 mos. 4 mos.	2/5 15/18	1,154 2,450	37 89	

Note Registers are made with separate pages for the months; and each note should be entered under the head of the month when it becomes due.

CHAPTER VII.

SECTION 1. — Valuation Account and Inventory.

59. The value of property can be known only by accurate count and estimation. and must be clearly stated both at the beginning and end of a term of business. An **inventory** is a list of quantities and values of property (other than Accounts, Cash, and Notes), such as, merchandise, shares of stock, real estate, etc. Such a list should be taken yearly, and each item weighed, measured, or counted, and estimated at fair prices. **Valuation** is the appraisement, or finding out the present worth, of a thing. It differs from price, for a thing may be bought at an extravagant price, and could be sold only at a loss, or *vice versa*, and a true estimate might be somewhere between these extremes. The common tendency is to deceive ourselves by over-estimation, and to imagine that we are richer than the reality would prove. Wrong estimates are ruinous, and it is better to see the truth than to continue an enterprise on a mistaken basis: the gain or loss of a term is really shown only by a fair comparison of the values owned at its opening and close. The best time for taking an inventory is when the smallest quantity of property is on hand, which, with the farmer, is in the spring. The student can make up extended lists for inventories from observation. The following list is all debit side: —

60. Inventory of the Farm, Stock, Tools, Etc., of the Ashby Farm, April 1, 1882.

Farm, 100 acres, with house and barn; assessors' valuation,			2,500	00	Am't brought forward,			3,313	
LIVE STOCK.					TOOLS AND IMPLEMENTS.				
1 horse,		80	00		2 ploughs, planter, cultivator, and harrow,	31			
4 oxen, @ \$45		180			Spades, shovels, axes, forks, rakes, hoes, baskets, grind-stone,	49		80	
2 steers,		25	50						
4 cows,		40	180		CROPS.				
2 calves,		7	14		112½ bush. corn, @ .60	07	50		
3 heifers,		15	45		20 " rye, .75	15			
3 hogs,			31		100 " potatoes, .40	40			
33 hens,			11	571	12 tons hay, 10.00	120			
WAGONS AND HARNESSSES.					30 bush. beets, .30	9			
1 Concord wagon,		80			Beef, pork, hams, etc., in meat-house,	45		296	50
1 express wagon,		40			Total, debit side,			3,689	50
2 ox-carts, @ .30		60							
1 new harness,		28							
1 ox-sled and chains,		8							
2 old harnesses and yokes		26		242					
Amount carried forward,				3,313					

61. In the single-entry system, the Valuation account is debited with the estimated worth of property at the beginning of a business term. At close of the term it is debited with the net increase, or credited with the net decrease, in amount, as the case may be; thus making the debit balance equal to the last inventory taken. Assuming that the total footings of inventories were as follows, — on Jan. 1, 1880, \$2,900; 1881, \$2,500; 1882, \$2,800, — the account would be stated as below for the three years.

DR.				VALUATION.				CR.			
1880.	Jan. 1	To 1st inventory,		2,900	00	1880.	Dec. 31	By net decrease		400	00
						1881.	Jan. 1	" balance forward,		2,500	
				2,900						2,900	
1881.	Jan. 1	To 2d inventory,		2,500							
	Dec. 31	" net increase,		300							
1882.	Jan. 1	" 3d inventory,		2,800							

62. The Valuation account, like all the other Ordinary accounts, shows increase of financial strength on its debit side, while its credit side shows decrease of the same. The form of stating Inventories in Single Entry is as follows:—

Debtor.		Creditor.
Amount of first Inventory.	} VALUATION ACCOUNT. {	} Net decrease at end of term.
Net increase at end of term.		

63. In the Double-Entry system, the manner of stating Inventories differs from this, as will be explained in that section. (See pages 90 and 131.)

An Inventory is often called an "Account of Stock;" that is, a list of the stock of goods on hand; but it must not be confounded with the "Stock Account." (See page 45.)

CHAPTER VIII.

Summary of Ordinary Accounts.

64. The forms of the foregoing or Ordinary accounts are such as may be used by any person in any business. The following condensed statement will aid the student in remembering them:—

Debtor.		Creditor.
Delivered to others and owed to us.	} ACCOUNTS CURRENT. {	} Received from others and due to them.
Money received.		
Other persons' notes received.	CASH.	Money paid out.
Our own notes redeemed.	NOTES RECEIVABLE.	Other persons' notes paid.
Of all other property by count at beginning.	NOTES PAYABLE.	Our own notes issued.
Net increase at end of term.	} VALUATION. {	} Net decrease at end of term.

Having learned the methods of keeping these classes of accounts, let us consider what they show when consolidated. The list of accounts is afforded by the ledger. The Cash and Note accounts should agree with the actual amounts existing. Property of all kinds is called "resources," or "assets:" debts of all kinds are called "liabilities." The excess of the sum of our assets above the sum of our liabilities is the amount of our net property, or net capital.

DR.

FINANCIAL EXHIBIT OF THE ASHBY FARMER.

CR.

APRIL 1, 1882.

ASSETS.				LIABILITIES.			
Porter Kimball	owes on %,	84	27	Robert Sampson, due him on %	19	29	
Thomas Livermore	" " "	28	19	Charles Derby, " " "	40	71	
Calvin Spaulding	" " "	58	31				60
Cash on hand,			168	Notes Payable; viz.,			
Notes Receivable; viz.,			106	Mar. 19, 6 mos., G. Hartwell,	200		
Mar. 1, demand, A. Younglove,				Feb. 11, 90 days, W. Daniels,	75		275
Nov. 19, 6 mos., Ira Ordway,			300	Total debts,			335
Valuation of Property; viz.,				Debit balance, or what he is			3,929
Real estate, assessors' valuation,				worth,			42
Personal, per inventory,							
Total assets,			4,264				4,264
			42				42

It is evident from the foregoing exhibit that we derive from the Ordinary accounts, including the *Valuation* of any property on hand at its *estimated worth*, a statement of our assets and debts. The general principle should be understood, that a *debit* to an Ordinary account indicates an enlargement, or *increase*, of the proprietor's financial resources, and that a *credit* to an Ordinary account indicates a diminution, or *decrease*, of the proprietor's wealth or financial ability. For example, let us assume that our lists of assets and liabilities are as follows: viz., —

ASSETS.			LIABILITIES.		
Accounts receivable due us,	1,500	00	Accounts payable outstanding,	600	00
Notes receivable on hand,	1,000		Notes payable unredeemed,	400	
Cash on hand,	4,000		Total debts,	1,000	
Valuation of 500 bbls. flour, @ \$9,	4,500		Debit balance, net capital,	10,000	
Total resources,	11,000			11,000	

If the market value of the flour advance so that it may be fairly considered to be worth \$10 per barrel, the item of Valuation will be increased by the addition of \$500 to its debit side, showing an increase of capital. Any other item of assets would show the same result if its amount were equally increased. On the other

hand, if the value of the flour should decline to \$8 per barrel, the sum of \$500 would be entered to the credit of Valuation account, in order to subtract it from the apparent capital now shown. An increase of either item of liabilities to the same amount would show the same result; but a *debit* to an Account Payable, or to the Note Payable account, shows the cancellation of a debt, which constitutes an increase of resources. It is evident that accounts, notes, or merchandise cannot be made available as resources until they are converted into money, or its equivalent, by transfers to the debit of Accounts current, Note accounts, or, finally, to the Cash account.

65. Accounts kept by single entry simply show, when complete, the actual assets and liabilities of the proprietor at the time of the inquiry. They do not show the constituent parts of gains or losses, nor afford a very ready clew to them.

CHAPTER IX.

Stock, or Capital Account.

66. This is one of the first accounts to be opened, and it shows the original capital at the beginning of a term of business. The sum of this capital must be definitely known in order to find out whether the business has been profitable or not. The account is sometimes opened in the proprietor's own name, or, in case of a firm, under that of each partner separately; and it will be noticed that this account, under a *personal* name, is precisely the same in form as an Ordinary Account current, and differs only in its *relation* to the business, it being *reverse* to that of the Ordinary accounts.

67. At the beginning of business the Stock account is charged, or debited, with the amount of our debts, and it is credited with the amount of our assets; or, what is equivalent, it is credited with our *net* capital. When this account is opened under the proprietor's *own name*, it is debited with such sums as he may withdraw for any purpose unconnected with the business. The net profits of a term of business are credited to the Stock account, or, in case of loss, the net loss is debited to it. This makes the balance of the account equal to the difference between the totals of our assets and liabilities at the close of one and the beginning of the next term of business.

STOCK, OR CAPITAL ACCOUNT.

DR.		STOCK.		CR.			
(Capital withdrawn.)				(Capital invested.)			
1882.				1882.			
Jan. 1	To debts at beginning,	1,000		Jan. 1	By assets at beginning,	7,000	00
Sept. 30	“ balance, net capital at close,	6,598	29	Sept. 30	“ net profit,	598	29
		7,598	29			7,598	29
				Sept. 30	By net capital, brought down,	6,598	29

68. This account is classed under the head of Subordinate accounts. Its *debit* side shows *decrease*, while the *credit* side shows *increase*, of the proprietor's financial strength, being *reverse* to the Ordinary accounts in relation to the business.

The form in brief is as follows : —

Debtor.
Capital drawn out.

STOCK ACCOUNT.

Creditor.
Capital paid in.

A debit to one and a corresponding credit to another *Ordinary* account denote only a change in the parts of assets, as when cash is received in settlement of a bill; the increase of one is balanced by the decrease of the other account, and the *aggregate* resources remain the same. But a debit to an Ordinary account and a credit to a Subordinate account *both* denote increase of resources, as when a proprietor puts in additional cash capital to his own credit; and, *per contra*, a credit to an Ordinary account and a debit to a Subordinate account *both* denote decrease of resources. (See pages 17, 25, 33, 38, 43, 44.)

FINANCIAL STATEMENTS CORRESPONDING TO THE ABOVE STOCK ACCOUNT.

A		B	
Jan. 1, 1882.		Sept. 30, 1882.	
David Mason owes me, on %,	3,000	Peter Wise owes me, on %,	2,991.63
Cash on hand,	500	Cash on hand,	792.98
I have John Trull's note for	1,000	I have Wm. Nichols' note for	314.23
Value of goods in my store is	2,500	Value of goods in my store is	4,625.86
	7,000.00		8,724.70
I owe Sidney Vose, on %,	400	I owe James Bruce, on %,	1,026.19
Geo. Watson has my note for	600	Asa Black has my note for	1,100.22
	1,000		2,126.41
Net capital, or what I am worth Jan. 1,	\$6,000.00	Net cap'l, or what I am worth Sept. 30,	\$6,598.29
		Less capital Jan. 1,	6,000
		Net profit, or what I have gained,	\$598.29

BOOK-KEEPING.

SINGLE ENTRY.

CHAPTER X.

SECTION 1. — Forms of Books used.

69. THE older books upon this subject have commonly presented the original record of business transactions, kept by single entry, in the form of one day-book, in which miscellaneous charges and credits (such as sales and purchases of goods, receipt and delivery of notes, receipts and payments of money, etc.) are entered, without classification, in the order of dates, as they occur. This method is not well systematized, nor much better than the simple memorandum already given; and it has often been the cause of confusion and complaint, on the part of creditors in cases of bankruptcy, owing to the lack of a regular and continuous cash account, and of information as to the disposal of promissory notes.

70. The merchant must keep in view, first, his resources and liabilities at the beginning of a term of business, and his record must necessarily commence with lists of them. In the continuation of an old business, these will be simply statements of Accounts and Notes both receivable and payable, of Cash on hand, and of the estimated worth or Valuation of other kinds of property. These lists of assets and liabilities may be derived from any reliable source. In a new business, where there are no debts, and money is the only resource, a credit to the proprietor of the original sum in cash paid in by him, upon the debit side of the cash-book, will be the only entry required to properly open the set of books. Three principal features of accounts remain to be constantly considered by the merchant in his account-books; viz.. —

1. The indebtedness of other persons to himself.
2. His own indebtedness to other people.
3. The liquidation or payment of these two kinds of debt.

The third item involves both the receipt and the payment of money, and so may be divided into two parts: hence, the systematic merchant who still adheres to the

single-entry system divides the original records of his business into at least four classes, as follows : viz., —

1. Debit day-book, or sales-book, containing charges, or debts receivable.
2. Credit day-book, or invoice-book, containing credits, or debts payable.
3. Receipts of money, or debit cash-book, on left-hand page. }
4. Payments of money, or credit cash-book, on right-hand page. } Opposite each other.

71. In an old business continued, where there is a list of assets other than cash, the **Debit Day-Book** should begin with this list, and continue with all charges or debits of any kind, except cash, which belong to the debit of any Ordinary account except the Cash account.

72. The **Credit Day-Book** should begin with a list of liabilities, and continue with all credits of any kind, except cash, which belong to the credit of any Ordinary account except the Cash account.

No cash items of any kind should be entered upon the *day-books*, except, perhaps, the original balance of cash on hand which is included in the list of assets, in order to show them entire. This entry should be noted on the cash-book, so as not to be posted more than once.

73. Charges to Accounts current for Notes Payable issued should be made on the debit book, and corresponding credits to the Note Payable account should be made on the credit book. Credits for Notes Receivable received upon Accounts current should be made on the credit book, and corresponding debits to the Note Receivable account should be made on the debit book. It should be remembered that an indispensable requirement in book-keeping is the record of Accounts, Cash, and Promissory Notes ; and any system which leaves either item confused or incomplete is undesirable. If we sell John Brown goods to the value of \$100 upon trust or credit, it is plain that his account on our ledger shows his indebtedness to us. If he pays the account in money, the sum is credited to his account, which it cancels, and placed to the debit side of Cash account as money received ; that is, the asset is transformed from a debt receivable into cash in hand. If, for any reason, his note should be received in settlement of his account, it should be credited to his account, which it balances and closes ; but the debt must not be lost sight of, for it still exists transformed from an *account* receivable into a *note* receivable, and therefore the Note Receivable account must be debited with the note, in order to keep the run of the indebtedness to us under that head.

74. Again : if we buy goods to the value of \$100 upon credit from Thomas Smith, his account on our ledger shows our indebtedness to him. If we pay this in

money, his account is debited with the sum, and cancelled thereby; that is, the liability has been transformed from a debt payable into money paid out, for which the Cash account is credited. If, instead of money, we issue our note to settle the account, it is charged to the account, which it closes; but the indebtedness must not be forgotten, for it still exists, and must be recorded by crediting the amount to the *note payable* account, into which it is transformed from an *account payable*: hence it follows, that, in order to keep track of both Inward and Outward Indebtedness, it is absolutely essential that an intelligible record of both Receivable and Payable Notes should be kept when they occur, as they may, in any business. Transfers of credit between personal accounts may be recorded in a similar way. This sort of transaction involves a principle which cannot be avoided or ignored, and it is more fully stated in the formulæ of the double-entry system, further on.

75. The **Cash-Book** begins with the original sum paid in upon the debit side, and credited to the person who pays it in; that is, the proprietor. All receipts of money should be credited to the sources or accounts from which they come by being entered on the debit or left-hand page of the cash-book to the debit of Cash. All disbursements of money should be charged to the proper accounts by entering them on the right-hand page to the credit of Cash. The Cash account in the ledger should be the shortest possible summary of the cash-book for a particular term, generally for a month, in actual business. It should consist of the original balance on hand, total receipts, and total disbursements, and it will show the closing balance on hand for the term. Different portions of the same book may be assigned to the three divisions of detail (debit day-book, credit day-book, and cash-book) in a small business requiring but few entries.

76. The **Ledger** is the final summary of all the account-books. Their details are gathered into it in condensed forms, and from it, taken as a whole, we derive a statement of our financial standing. Each account in a ledger should occupy a separate and sufficient space by itself. Original entries should be made in the day-books and cash-book in chronological order, as they occur, and posted into the ledger in the same order. The ledger should refer to the original book by means of a page-number against the item, and the original entry should also refer to the ledger by the same means.

77. The following set of books covers a week's time, and is that of a dealer in furniture. The student will understand it by assuming that he is the proprietor, under the title of "Isaac Mason." It begins with lists of assets and liabilities, upon the debit and credit day-books respectively, and continues with charges and credits upon accounts, together with receipts and payments of money on the cash-book.

Now let us suppose the personal items only of this set of books to be posted to the ledger, and we have only the accounts with personal names upon its first pages. It is required to exhibit a statement of the business, and the following is the result : viz., —

ASSETS.			LIABILITIES.		
G. T. Jackson owes me on %,	16	04	Due to Carl Jelinek,	300	00
E. B. Lamson " " "	20	75	" " Robert Sutherland,	250	
G. Lombard " " "	67				
L. A. Washburn " " "	74	60			
Total assets,	178	39	Total liabilities,	550	

This is a very meagre and unsatisfactory showing; and it is evident that Cash, Notes, and Valuation of other kinds of property must be included in the ledger, in order to have it show the actual condition. The entries to the Note accounts, both in the day-books and the cash-book, require to be posted, and also those to the Valuation account. The entry to Valuation account, at close of this set, is made on the *credit book*, because it shows a *decrease* in amount. If an *increase* was to be shown, the entry would be made on the *debit book*. The Cash account in the ledger should show the same balance as the cash-book, at close of term. In making up the Balance sheet of a Ledger, at close of a term, each side of the unsettled accounts should be added in pencil, and the debit or credit remainder, as the case may be, set down upon its proper side. A list of these remainders makes the Balance sheet. As a general rule, unsettled accounts current should not be ruled off and balances brought forward at the close of one business term, as this tends to complicate them: their closing will come in the settlements of the next term.

78. As no single-entry system is complete, except in regard to the Ordinary accounts, and does not afford a ready proof of itself, nor give comparative statements of purchases, sales, expenses, income, etc., it will be seen that the double-entry system, which does these things, is more perfect and desirable. The forms given may be modified by entering Note and Transfer records "short" on the day-books, that is, omitting them from and leaving the right-hand columns clear for addition, and by additional columns on the cash-book for convenience of footing, so as to afford totals for the proof of the ledger, as has been done with James Piper's set of books, next in order. The sets of books and examples are necessarily made up for short terms; it is customary, in actual business, to take an Inventory and incorporate it in the Ledger once a year.

SECTION 2. — Isaac Mason's Books.

The history of the business stated in Isaac Mason's books is given here in narrative form, in order that there may be no misapprehension : — the student may suppose himself to be the proprietor.

Sept. 4, 1882. — I have the following resources at beginning of my business : G. Lombard owes me \$167 on account ; Joseph Porter owes me \$89.25 on account ; I have \$300 in cash on hand ; I have also two demand notes belonging to me, one signed by H. Jones, dated Aug. 1, for \$75, and another, dated July 1, signed by W. Griffin, for \$50 ; I have taken a list of the goods in store belonging to me, and they amount to \$2,700. The foregoing items are my entire resources, but I owe some debts which are to come out of the total assets : viz., I owe an account to Amasa Adams for \$186.50 ; I owe \$220 to Abel Holbrook, on account ; Carl Jelinek has my note of Aug. 15, at one month, for \$109 ; and my note, at two months, for \$147, dated July 15, given to Robert Sutherland, is still unpaid. I transact the following business : —

Sept. 5. — I sell to L. A. Washburn 58 yds. of carpet, which I agree to have made and laid on his floors @ \$1.20 per yd., and it is done by my workmen ; I also furnish 50 yds. of carpet-lining @ 10 cts. per yd. I have received the money for H. Jones's note from him, \$75, and have given him the note. I have paid A. Adams \$186.50, in full for his account, and taken his receipt. Robert Sutherland has completed and sent in, with a bill, a parlor suite, which I had ordered previously to be made for \$250. G. Lombard pays me \$100 cash, on account, and takes my receipt.

Sept. 6. — I pay my note held by Sutherland, \$147, and he delivers it to me. Carl Jelinek sends in, with a bill for \$300, a bedroom set built of cherry-wood by my order from drawings which I furnished. I have sold the parlor suite for \$275 cash, and the bedroom set for \$325 cash, and have delivered them, and received the money. My workmen have recovered and re-gimiped 5 chairs for G. T. Jackson, for which I charge him \$1 each ; they have packed and boxed a lot of furniture for him, and I charge him \$6 for the job ; I have furnished 42 yds. burlap, for which I charge him 12 cts. per yd.

Sept. 7. — I have paid A. Holbrook \$150 cash, on account, and given him my note for \$70 dated this day, on demand, to settle his account. I have furnished E. B. Lamson 6 window-shades and fixtures, at \$2 each put up, and have had some hangings and cornices arranged by his order, at a cost of \$8.75, all of which I charge to him.

Sept. 8. — Joseph Porter gives me his note of Sept. 1, on demand, for \$89.25, to settle his account.

Sept. 9. — I have paid my clerk \$15, and \$30 to mechanics, for one week's work. I make a list of goods on hand to-day, and find it amounts to \$2,650, or \$50 less than the first list

DEBIT DAY-BOOK.

[The Indebtedness of Other Persons to the Proprietor, or Increase of his General Resources.]

[1]

Roxbury, Monday, September 4, 1882.

LIST OF ASSETS for which the following accounts are debited:—					
ACCOUNTS RECEIVABLE,—					
L. F.	6	G. Lombard owes me on $\frac{1}{2}\%$,	167.		
	7	Joseph Porter owes me on $\frac{1}{2}\%$,	89.25	256	25
				300	
10		Cash on hand, as per cash-book,			
11		Notes Receivable on hand; viz.,—			
		Aug. 1, demand, H. Jones,	75.		
		July 1, demand, W. Griffin,	50.	125	
13		Valuation of goods in store per 1st Inventory,		2,700	
		(See credit day-book for list of liabilities.)			3,381 25
----- Sept. 5. -----					
9		L. A. WASHBURN,—	Dr.		
		To 58 yds. carpet, made and laid,	1.20	69	60
		" 50 yds. carpet-lining,	.10	5	
		----- Sept. 6. -----			74 60
3		GEORGE T. JACKSON,—	Dr.		
		To covering 5 chairs in plush and re-gimping,	1.	5	
		" packing and boxing one lot of furniture,		6	
		" 42 yds. burlap,	.12	5	04
		----- Sept. 7. -----			16 04
5		E. B. LAMSON,—	Dr.		
		To putting up 4 lambrequins and 5 cornices,		8	75
		" 6 window shades and fixtures put up,	2.	12	
		----- Sept. 7. -----			20 75
A	2	A. HOLBROOK,—	Dr.		
		To my note issued to him of this date, on demand,		70	
		----- Sept. 8. -----			70
B	11	NOTES RECEIVABLE,—	Dr.		
		To Joseph Porter's note of Sept. 1, on demand, received.		89	25
		(Entries A and B correspond to A' and B' on opposite page.)			89 25
					3,651 89

CREDIT DAY-BOOK.

[The Indebtedness of the Proprietor to Other Persons, or Decrease of his General Resources.]

Roxbury, Monday, September 4, 1882.

[2]

		LIST OF LIABILITIES for which the following accounts are credited:—					
L. F.	1	ACCOUNTS PAYABLE, —					
	2	Amasa Adams, due him on %,	186.50				
		Abel Holbrook, due him on %,	220.	406	50		
12		NOTES PAYABLE outstanding; viz., —					
		Aug. 15, 1 month, Carl Jelinek,	109.				
		July 15, 2 months, Robert Sutherland,	147.	256		662	50
		(For assets see debit-book.)					
		Sept. 4.					
14		ISAAC MASON, Stock %, CR.					
		By total assets, 3,381.25					
		Less liabilities, 662.50	Net capital to my credit is,	2,718	75		
		Sept. 5.					
8		ROBERT SUTHERLAND, — CR.					
		By building 1 parlor suite, upholstered in raw silk,		250		250	
		Sept. 6.					
4		CARL JELINEK, — CR.					
		By building 1 bed-room set, in cherry, per design,		300		300	
		Sept. 7.					
A' 12		NOTES PAYABLE, — CR.					
		By my note of this date on demand, issued to A. Holbrook,		70		70	
		Sept. 8.					
B' 7		JOSEPH PORTER, — CR.					
		By his note of Sept. 1, on demand, received on his %,		89	25	89	25
		Sept. 9.					
13		VALUATION, — CR.					
		1st inventory of Sept. 4 was	2,700.00				
		2d inventory of Sept. 9 is	2,650.	50		50	
		Net decrease is,					
		(Entries A' and B' correspond to A and B on opposite page.)				1,421	75

DEBIT CASH-BOOK.

[The Payment of Other Persons' Debts to the Proprietor, or Increase of his Cash Resources.]

Dr.
[3]

CASH RECEIVED IN SEPTEMBER, 1882.

1882. Sept. 4	L.F.	To I. Mason, bal. on hand (posted from list of assets),			300	00
" 5	11	" Notes Receivable, H. Jones's note paid,	75	00		
" 5	6	" G. Lombard, on %,	100			
" 6	✓	" 1 parlor suite sold for cash,	275			
" 6	✓	" 1 bed-room set sold for cash,	325			
	10	Net receipts during the week,			775	
					1,075	
1882. Sept. 9		To balance on hand,			546	50

Example A.

Suppose yourself carrying on a retail business in dry-goods. Make the proper record of the following items in the day-books and cash-book, and then post them in a ledger:—

May 20, 1882. Valuation of goods on hand, \$514.49, per first inventory: cash on hand, \$65; sold Eliza Cartwright a shawl for \$12, on account; cash sales, \$13.50. *May 21.* Sold John M. Brown 5 yds. cassimere, @ \$1.25 a yd., on account; paid William Smith for desk \$10 in cash; cash sales, \$17.50. *May 22.* Sold John M. Brown 32 yds. of sheeting, @ 15 cts. a yd., on account; William Connor paid me \$50 in cash for two months' rent to date, and had receipt in full; cash sales, \$35.25. *May 23.* John M. Brown put up some shelves, charging me \$5.25, on account; paid James Wilson for groceries \$10.50 in cash; cash sales, \$42.50. *May 24.* Sold Eliza Cartwright 18 yds. of black silk, @ \$1.50 a yd., on account; John M. Brown paid me cash, \$2, on account; settled bill of Samuel Lawrence & Co., for goods bought of them, by paying cash \$115.60, and giving my note for \$200 at sixty days; cash sales, \$18.50. *May 25.* Sold to Eliza Cartwright 5 yds. silesia, @ 14 cts. a yd., on account; sold John M. Brown 4 table-cloths, @ \$1.25 each, on account; paid bill for gas, \$4 in cash; cash sales, \$52.50; goods on hand, \$662.37, per second inventory.

Balance your cash-book. Make out Eliza Cartwright's bill, and receipt it. Write the receipt given to William Connor. Write the note given to Samuel Lawrence & Co. Make an exhibit from the ledger, showing result of the business, how much profit or loss is made, of what the assets and liabilities consist, and prove it by footings of day-books and cash-book.

CREDIT CASH-BOOK.

[The Payment of the Proprietor's Debts to Other Persons, or Decrease of his Cash Resources.]

CASH PAID OUT IN SEPTEMBER, 1882.

Cr.

[4]

1882.	L.F.					
Sept. 5	1	By Amasa Adams, on %,	186	50		
" 6	12	" Notes Payable to R. Sutherland, paid and taken up,	147			
" 7	2	" Abel Holbrook, on %,	150			
" 9	✓	" clerk-hire for one week,	15			
" 9	✓	" mechanics' wages for one week,	30			
	10	Total disbursements during week,			528	50
		By balance forward to next week,			546	50
					1,075	
		Items unposted are checked thus (✓).				

Example B.

Imagine yourself the proprietor of a country store. Enter the following items in your debit and credit day-books and cash-book, and post to your ledger:—

May 1, 1882. Value of goods in store is \$519.42, per first inventory; cash on hand, \$116.50; I sold John B Smith 1 suit of clothes @ \$22, and 25 yds. of cotton @ 10 cts. a yd., and I received from him 8 doz. eggs @ 15 cts. a doz., and 16 lbs. of butter @ 25 cts. a lb. *May 3.* I sold William E. Carter 8 lbs. of coffee @ 20 cts. per lb., 1 coffee-mill @ \$1.25, and 25 lbs. of sugar @ 10 cts. per lb.; I bought of him 20 lbs. wool @ 50 cts. per lb. *May 4.* I sold George Carpenter a single harness @ \$50, and received in part payment his note for \$30, payable in one month; I received from Francis S. Johnson 2 tons of hay @ \$20 a ton, and sold him 1 pr. of boots @ \$5, and 2 prs. of children's shoes @ \$1.50 a pr. *May 6.* Sold William E. Carter a china tea-set @ \$15, and received from him 30 lbs. of wool @ 50 cts. per lb. *May 8.* Charles P. Fuller bought of me 2 bbls. coarse salt @ \$3 per bbl., and 4 gals. molasses @ 60 cts. per gal.; I received of him 3 cords of hickory-wood @ \$6 per cord. *May 10.* James J. Sawyer bought of me 6 lbs. tea @ 80 cts. per lb., 10 lbs. sugar @ 9 cts. per lb., and 15½ lbs. codfish @ 10 cts. per lb.; he has repaired my wagon at a cost of \$8.50, for which I give him credit. *May 11.* George Carpenter bought a bbl. of flour for \$9.50, and I received of him 6 hams (114 lbs.) @ 14 cts. per lb. *May 13.* John B. Smith delivered to me 10 doz. eggs @ 20 cts. a doz., and 24 lbs. butter @ 30 cts. per lb. *May 15.* Received of George Carpenter \$10 on account. *May 18.* Sold Charles P. Fuller 10 yds. linen @ 60 cts. per yd., and 3½ yds. broadcloth @ \$4 per yd. *May 20.* Sold Francis S. Johnson 20 bush. wheat @ \$1.60 per bush. *May 22.* James J. Sawyer bought 10 lbs. raisins @ 12½ cts. a lb.; value of goods in store is \$498.49, per second inventory. Show the result.

ISAAC MASON'S LEDGER.

INDEX.

	PAGE		PAGE		PAGE		PAGE
Adams, A.	1	Jackson, G. T.	3	Notes Payable	12	T, U.	
B.		Jelinek, C.	4	Notes Receivable	11	Valuation	13
Cash	10	K.		O.		Washburn, L. A.	9
D, E, F, G.		Lamson, E. B.	5	Porter, J.	7	X, Y, Z.	
Holbrook, A.	2	Lombard, G.	6	Q, R.			
I.		Mason, I.	14	Sutherland, R.	8		

A lettered index is usually made in the first part of a ledger for ready reference.

Dr.		(Page 1.)		AMASA ADAMS.		Cr.					
1882.	Sept. 5	To cash,	4	186	50	1882.	Sept. 4	By liabilities,	2	186	50

(Page 2.)			ABEL HOLBROOK.								
1882.						1882.					
Sept. 7	To cash,	4	150	00	Sept. 4	By liabilities,	2	220	00		
" 7	" note payable,	1	70								
			220					220			

(Page 3.)		GEORGE T. JACKSON.							
1882.	Sept. 6	To mdse.,	1	16	04				

(Page 4.)		CARL JELINEK.						
				1882. Sept. 6	By mdse.,	2	300	00

(Page 5.)		E. B. LAMSON.							
1882.	Sept. 7	To mdse.,	1	20	75				

Dr.		(Page 6.)	G. LOMBARD.			Cr.		
1882. Sept. 4	To assets,	1	167	00	1882. Sept. 5	By cash,	3	100 00

		(Page 7.)	JOSEPH PORTER.					
1882. Sept. 4	To assets,	1	89	25	1882. Sept. 8	By note receivable,	2	89 25

		(Page 8.)	ROBERT SUTHERLAND.					
					1882. Sept. 5	By mdse.,	2	250 00

		(Page 9.)	L. A. WASHBURN.					
1882. Sept. 5	To mdse.,	1	74	60				

		(Page 10.)	CASH.					
1882. Sept. 4	To original balance,	3	300	00	1882. Sept. 9	By disbursements,	4	528 50
" 9	" receipts,	3	775		" 9	" balance forward,		546 50
			1,075					1,075
Sept. 9	To bal. bro't forw'd,		546	50				

		(Page 11.)	NOTES RECEIVABLE.					
1882. Sept. 4	To H. Jones's note,	1	75	00	1882. Sept. 5	By cash for J.'s note,	3	75 00
" 4	" W. Griffin's note,	1	50					
" 8	" J. Porter's note,	1	89	25				

		(Page 12.)	NOTES PAYABLE.					
1882. Sept. 6	To cash for S.'s note,	4	147	00	1882. Sept. 4	By R. Suth'd's note,	2	147 00
					" 4	" C. Jelinek's note,	2	109
					" 7	" A. Holbrk's note,	2	70

Dr.		(Page 13.)		VALUATION.		Cr.	
1882. Sept. 4	To 1st inventory,	1	2,700	00	1882. Sept. 9	By decrease, " balance forward,	2 50 00 2,650
			2,700				2,700
Sept. 9	To bal. (2d invent'y),		2,650				

(Page 14.)		ISAAC MASON. (Stock %.)	
1882. Sept. 4	By original capital,	2	2,718 75

Dr.		Balance-Sheet of Isaac Mason's Ledger, Sept. 9, 1882.		Cr.	
ASSETS.				LIABILITIES.	
3. G. T. Jackson,	16	04		4. C. Jelinek,	300
5. E. B. Lamson,	20	75		8. R. Sutherland,	250
6. G. Lombard,	67				
9. L. A. Washburn,	74	60		Total accounts payable,	550
Total accounts receivable,	178	39		12. Notes payable: viz., —	
10. Cash on hand,	546	50		Holbrook,	70.00
11. Notes receivable: viz., —				Jelinek,	109.
Griffin,	50.				179
Porter,	89.25	139	25	Total liabilities,	729
13. Valuation 2d inventory,	2,650			14. Original capital,	2,718.75
				Difference, profit,	68.39
Total assets,	3,514	14			2,785
					14

79. This ledger may be proved in several ways. as follows. The last two prove it by showing a credit remainder equal to the debit remainder shown by the balance-sheet.

FIRST PROOF.			
DEBITS TO THE LEDGER.		CREDITS TO THE LEDGER.	
Total debit-book,	3,651 80	Total credit-book,	1,421 75
“ cash receipts,	775	“ cash disbursements,	528 50
Cash items debited,	483 50	Cash items credited,	175
		Total credits,	2,125 25
		Difference, debit balance,	2,785 14
<div>Total debits,</div>	4,910 39		4,910 39

SECOND PROOF.

Dr.	(Outlay.)	OUTLAY AND RETURNS.	(Returns.)	Cr.
From credit-book, \$250, \$300, \$50,	600 00	From debit-book, \$74.60, \$16.04,		
“ credit cash, \$15, \$30,	45	\$20.75,	111	39
Difference, credit balance, profit,	66 39	From debit cash, \$275, \$325,	600	
	711 39		711	39

THIRD PROOF.

Dr.	(Outlay.)	MERCHANDISE.	(Returns.)	Cr.
Value 1st inventory,	2,700 00	Total sales, debit-book,	111	39
Total purchases, credit-book,	550	“ “ cash-book,	600	
“ expenses, cash-book,	45	Value 2d inventory,	2,650	
Difference, credit balance, profit,	66 39			
	3,361 39		3,361	39

SECTION 3. — Examples for Practice.

Example 1.

80. Suppose yourself engaged in a dry-goods business, and that a record of one week's transactions is given below.

June 6, 1881. — Amount of first inventory of goods, \$3,000. Cash on hand, \$250. I hold James Ford's note for \$300, and I owe Bent & Wilson \$116.43 on account. Sold William Morgan 8 yds. of broadcloth @ \$3.50 a yd. Cash sales, \$53.32.

June 7. — Bought of William Morgan 5 tons of stove coal @ \$6.25 a ton. Sold Bent & Wilson 1 piece of cambric, 42 yds., @ 25 cts. a yd. Cash sales, \$85.25.

June 8. — Drew cash for personal expenses, \$20. Paid clerk, \$8. Sold Bent & Wilson 25 yds. of brocade silk @ \$2.50 a yd. Cash sales, \$87.56.

June 9. — Sold William Morgan 1 cashmere shawl, \$250. Bought of Bent & Wilson 2 pieces of black doeskin, 42 yds. in all, @ \$1.15 a yd. Cash sales, \$113.80.

June 10. — Bought of William Morgan 10 tons of furnace coal @ \$5.75 a ton. Paid cash for life insurance, annual premium, \$112.50. Sold Bent & Wilson 1 piece of Irish linen, 26 yds., @ 75 cts. a yd. Cash sales, \$134.62.

June 11. — Received the cash for James Ford's note, with interest added for 6 months, at 6 per cent. Bought of Bent & Wilson 5 pieces of cassimere, 156 yds. in all, @ \$1.25 a yd. Sold William Morgan 5 yds. of alpaca @ 42 cts. a yd. Settled with Bent & Wilson, paying cash to balance account. Paid cash for rent of store, \$30. Cash sales, \$116.83. Amount of second inventory, \$2,500.

1. Enter the transactions as in debit and credit day-books and cash-book.
2. Show the same in ledger form, and the result. Prove it.
3. Make out your bill against William Morgan, giving the items of both debits and credits.
4. Exhibit your cash account, showing the cash on hand at close of the week.

Example 2.

81. Suppose yourself a manufacturer and seller of boots and shoes. Enter and post the items given below, and show the result of the week's business.

June 7, 1880. — Stock in store, \$1,850. Cash on hand, \$565.35. James G. Grant owes me on account \$118.50. I owe Mills & Harris on account \$215.50. Cash sales, \$85.30.

June 8. — Bought of Mills & Harris 52 lbs. sole leather @ 28 cts. Sold James G. Grant 1 pr. calf boots, \$9. Cash sales, \$71.40.

June 9. — Sold Mills & Harris 2 prs. congress boots @ \$7.50. Paid them \$100 cash. Sold James G. Grant 3 prs. children's shoes @ \$2.25. Cash sales, \$103.25.

June 10. — Bought of Mills & Harris 52 lbs. calf-skin @ 62 cts. Bought of James G. Grant 4 tons coal @ \$6. Cash sales, \$94.30.

June 11. — Bought of Mills & Harris 40 lbs. kip leather @ 21 cts. James G. Grant paid me cash, \$75. Cash sales, \$64.75.

June 12. — Sold James G. Grant 1 pr. slippers, \$1.75. Settled with Mills & Harris paying them cash \$148.17, and was allowed a discount of \$7.53. Paid workmen cash, \$72. Paid rent of store, \$25. Cash sales, \$82.40.

At close of the week, stock in store, \$1,586.96. Make a balance-sheet of the ledger, and prove it.

Example 3.

82. Suppose you open a bookstore, and do business as below. Enter and post the items, balance accounts, and show the result.

June 2, 1879. — Merchandise in store, \$1,725; cash on hand, \$83.45. I owe Smith & Brown \$325. I owe James O. White \$217. Sold Martin Harlow, on credit, 1 Ganot's physics, \$3.75. Cash sales, \$43.64.

June 3. — Sold Samuel Palmer, on credit, 1 Warren's geography, \$1.25; 1 fifth reader, \$1.10; and 1 United-States history, \$1. Sold Martin Harlow, on credit, 1 Worcester quarto dictionary, \$7.50. Cash sales, \$31.43.

June 4. — Paid Smith & Brown, on account, \$100. Sold Martin Harlow, on credit, Macaulay's essays, 5 vols., @ \$1.25 per volume. Sold Samuel Palmer, on credit, 1 Oxford Bible, \$5.50. Bought of James O. White, on account, mdse. as per bill, \$27. Cash sales, \$37.16.

June 5. — Sold Samuel Palmer, on credit, Scott's novels, 12 vols., @ \$1.50 per volume. Sold Martin Harlow 2 reams note-paper, on credit, @ \$2.25 per ream. Gave Smith & Brown my note for \$225, payable two months from date. Cash sales, \$41.37.

June 6. — Sold Martin Harlow, on credit, 1 "Fairyland of Science," \$1.50; and 1 "Art of Projecting," \$1. Bought of Martin Harlow, on account, 1 ton of coal, \$5; and $\frac{1}{2}$ cord of wood, \$4.25. Samuel Palmer paid on account, \$15. Cash sales, \$28.75.

June 7. — Bought of James O. White, on account, mdse., \$87.50; and paid him on account, cash, \$150. Sold Martin Harlow 1 French grammar, \$1.75. Cash sales, \$36.25.

At close of the week, mdse. in store, \$1,645. Make a balance-sheet of your ledger, showing the composition of your resources and liabilities at close of this business, and prove it.

SECTION 4. — Character of the Merchant's Account-Books.

83. Although the merchant's account-books are his private records, they also partake of the nature of a trust, and should bear internal evidence of being kept honestly and in good faith. They should be competent to admit of and bear the scrutiny of creditors, if it become expedient or necessary. There should be no blots, erasures, over-writing, tearing out of leaves, nor any thing to throw suspicion upon them. If errors are made, they should be so corrected as to show the original error, and the reason for its correction. Account-books should be so plain and clear as to be understood at once by the stranger who sees them for the first time, and explicit and ample enough for the guidance of an executor or administrator, in case of the merchant's death without a partner.

84. Original entries should be records of actual transactions made upon the day of their occurrence, in a plain, intelligible manner, and not in secret figures or a private mark understood only by the seller. Charges or debits should be specific, and name the particular article furnished or service performed, as it arises daily. Indefinite charges, as "for 100 days' work," or "for medical attendance and medicine," made in a lump sum, without particulars of dates, etc., have been rejected by courts of law. The quantity, quality, weight, measure, number, name, size, price, or any other essential designation of the thing sold, should be clearly stated.

85. An original charge, when proved by the oath in court of the person who made the entry, is good evidence of labor performed, or of articles furnished direct in small quantities, such as small daily supplies for a family by a grocer or provision dealer. It is not evidence of money paid out or lent, nor of the delivery of goods through a common carrier. Any manifest alteration or erasure in a material point would prevent its admission as evidence, unless the alteration could be satisfactorily explained.

86. The original book in which first charges for goods *delivered* or work *done* are made by the tradesman or mechanic is admissible as evidence; but the entry must be made in a proper book. A book made up by copying on the same day from first charges made on a slate is not an original book; nor is an order-book containing a list of goods entered when ordered, but before their delivery, an original book in the sense of a charge for a thing completed. **Various systems**, suited to the particular business, are used by merchants in making original charges. Light and clean goods are commonly taken to an entering counter, and called off *viva voce* to a clerk, who writes the list in a sales-book; errors are detected by the calling back of the list; alternate books are used, one being posted from, while charges are made in the other by another clerk. When the goods are heavy and dirty, the marks, numbers, and quantities are taken from them on a hand-book or slip, and transferred to the sales-book. In a wholesale business, bills are sent to the buyer together with the goods, and, when due, a statement of dates and amounts is sent him, which can be verified by the original bills in his possession. In a retail business, **Item Ledger accounts** are necessary, where small sales are made on credit, and are more convenient than constant reference to original books for items, whenever customers call for bills. The two forms of Jonas Marshall's account, on pages 17 and 18, are suitable for this purpose. A bill of items is requisite in order to bring suit upon a disputed account. When a business consists of many small cash sales, the form of record requires modification: some use **duplicate printed slips**, prepared similarly to a check-book, with blanks for particulars, which are filled out by the salesman; one is cut off, and sent with the money to the cashier, and the other is retained. The total of money receipts each day should tally with the totals of the salesmen's stubs, which are the duplicate leaves remaining after part of the leaf is cut off. **Original charges** are sometimes made in like manner, the slips being filed or bound together; but it is questionable whether a book so made would be considered a proper account-book in a court, and it is objectionable because of the liability to loss of loose slips. **Impression copies** of original bills sent out, systematically made in a press-book, are preserved by some merchants as the original charge, and posted thence to the ledger. **Credit tickets** are also used for goods returned.

Original invoices of goods bought are often bound together in book form, the names, dates, and amounts being noted and footed on a marginal or title-page sheet, from which they may be posted. Any system which places original information where it is classified and accessible, and avoids much copying and detail, is worth adopting.

DEBIT DAY-BOOK.

Shirley, Friday, September 1, 1882.

[1]

LIST OF MY ASSETS, for which the following accounts are debited:—					
L. F.	Accounts Receivable due me:				
3	MATTHEW APPLETON owes on %,	83.52			
10	MARK PEACHAM " "	60.49			
12	LUKE PEARSON " "	48.20			
6	PAUL CHERRYTON " "	25.32			
13	SILAS PLUMMER " "	30.24	247	77	
16	Notes Receivable on hand belonging to me:				
	June 1/82. @ 4 mos., PHILIP WARDNER,	200.			
	" 17 " " 3 " HANS JAEGER,	190.			
	Mch. 18 " " 6 " RICHARD EDES,	150.			
	June 15 " " 4 " CHARLES PREAUT,	152.80			
	Aug. 20 " demand, ROBERT KELLER,	49.51	742	31	
15	Cash on hand as per cash-book,		263	29	
18	Valuation of goods per 1st inventory,		2,439	87	
	(For Liabilities see Credit-Book.) Total Assets,		3,693	24	
10	MARK PEACHAM, DR.				
	To 1 bbl. flour,		8	25	
	10 lbs. sugar,	.11	1	10	
	2 " coffee,	.35		70	10 05
6	PAUL CHERRYTON, DR.				
	To 1 pr. kid slippers, } delivered to daughter Mary,		1	25	
	9 yds. print,	.08		72	1 97
	Saturday, 2d.				
3	MATTHEW APPLETON, DR.				
	To 1 hatchet,		1	25	
	2 chisels,	.75	1	50	2 75
13	SILAS PLUMMER, DR.				
	To 3 lbs. tea,	.50	1	50	
	5 gals. molasses,	.48	2	40	3 90
	Amount carried forward,				18 67

Shirley, Saturday, September 2, 1882.

L. F.	<i>Amount brought forward,</i>					18	07
12	LUKE PEARSON,	DR.					
	To 42 yds. sheeting,	.08	3	36			
	20 " ticking,	.15	3				
	10 " black alpaca,	.50	5			11	36
11	JAMES PENNOYER,	DR.					
	To 1 bbl. flour,		9			9	
	<i>Monday, 4th.</i>						
A 5	BOLLES & AVERILL,	DR.					
	To my note of Aug. 24/82, @ 3 mos., issued and delivered them,		96	45			
	<i>Wednesday, 6th.</i>						
7	CROSBY & BLANEY,	DR.					
	To 10 tubs butter, 397 - 68 = 329 lbs.	.28	92	12		92	12
	<i>Thursday, 7th.</i>						
13	SILAS PLUMMER,	DR.					
	To 1½ yds. broadcloth,	6.	10	50			
	2½ " cassimere,	1.50	3	75		14	25
3	MATTHEW APPLETON,	DR.					
	To 1 keg 4d. nails, 100 lbs.		5	75			
	1 auger-bit,			62			
	200 ft. window-glass, 9" x 12"	8.	16			22	37
	<i>Friday, 8th.</i>						
6	PAUL CHERRYTON,	DR.					
	To 2 pcs. colored ribbon,	.42		84			
	1½ yds. silk,		2	50			
	1 bonnet-frame,	2.		35		3	69
	<i>Saturday, 9th.</i>						
B 16	NOTES RECEIVABLE,	DR.					
	To note of M. Appleton, dated Sept. 9, @ 30 days, rec'd in %,		108	64			
	<i>Monday, 11th.</i>						
10	MARK PEACHAM,	DR.					
	To 5 yds. silesia,	.14		70			
	4 scarf table-covers,	1.25	5			5	70
	<i>Amount carried forward,</i>					177	16

Shirley, Tuesday, September, 12, 1882.

[3]

L. F.	Amount brought forward,				177	16
11	JAMES PENNOYER,	DR.				
	To 1 ream letter-paper,		3			
	1 doz. lead pencils,			75	3	75
	Friday, 15th.					
6	PAUL CHERRYTON,	DR.				
	To 3 tons hay,	12.	30		30	
	Saturday, 16th.					
10	MARK PEACHAM,	DR.				
	To 10 gals. kerosene oil,	.20	2			
	30 lbs. granulated sugar,	.11	3	30	5	30
	Monday, 18th.					
12	LUKE PEARSON,	DR.				
	To 2 lbs. black tea,	.55	1	10		
	5 " cheese,	.15		75		
	$\frac{1}{4}$ bush. white beans,	2.	1		2	85
13	SILAS PLUMMER,	DR.				
	To 10 gals. Porto Rico molasses,	.50	5			
	5 lbs. Carolina rice,	.10		50		
	2 " Java coffee,	.35		70	6	20
	Tuesday, 19th.					
C 3	M. APPLETON,	DR.				
	To his order in favor of P. Cherryton, rec'd from P. C.,		36			
	Wednesday, 20th.					
9	PATRICK HALPINE,	DR.				
	To 1 cassimere suit (coat, vest, and trousers),		18		18	
D 11	JAMES PENNOYER,	DR.				
	To his order in favor of Patrick Halpine, rec'd from P. H.,		9			
	Thursday, 21st.					
3	M. APPLETON,	DR.				
	To 2 gals. sperm oil,	1.50	3			
	10 " kerosene oil,	.12	1	20	4	20
	Amount carried forward,				253	46

[4]

Shirley, Saturday, September 23, 1882.

L. F. E 16	Amount brought forward, NOTES RECEIVABLE, To M. Peacham's note of Sept. 23, @ 30 days, rec'd in %, DR.	51	54	253	46
	Monday, 25th.				
6	PAUL CHERRYTON, To 10 lbs. corn-meal, DR. 1 bbl. potatoes, .03 20 lbs. rye-meal, .02½	1	30 50 50	2	30
7	CROSBY & BLANEY, To 20 boxes cheese, 819 lbs. net, DR. .12½	102	38	102	38
	Tuesday, 26th.				
1	ABEL F. ADAMS, To 1 Jersey cow, warranted sound for one month, DR.	60		60	
F 1	ABEL F. ADAMS, DR. To M. Peacham's note of Sept. 23, @ 30 days, indorsed by me without recourse, sold and delivered to him for its face,	51	54		
	Wednesday, 27th.				
G 17	NOTES PAYABLE, DR. To my own note of May 18, @ 4 mos., given to Koehler & Co., returned and surrendered by Crosby & Blaney, on their %, .	76	67		
	Friday, 29th.				
19	JAMES PIPER (stock %), DR. To sundry items of mdse. delivered him for personal use,	24	19	24	19
	Saturday, 30th.				
	(The valuation of stock in store, as per 2d inventory taken this day, is \$2,300: this, being less than the sum of the 1st inventory, shows a decrease, and the Credit entry is entered on the Credit-book; if an increase had been shown, a Debit entry would have been made here.)				
	Total sales or returns upon accounts,			442	33

CREDIT DAY-BOOK.

Shirley, Friday, September 1, 1882.

[5]

	LIST OF LIABILITIES , for which the following accounts are credited:—			
L. F.	Accounts Payable; viz.:			
14	WILLARD & GERRISH, due them on %,	39.84		
5	BOLLES & AVERILL, " " "	96.45		
8	GRAY & HAMLIN, " " "	85.90	222	19
17	Notes Payable outstanding; viz.:			
	May 15/82, @ 4 mos., RUSSELL & BRO.,	114.28		
	" 18 " " 4 " KOEHLER & Co.,	76.67		
	" 20 " " 4 " MALBON & SON,	119.42	310	37
	(For Assets see Debit-Book.)	Total Liabilities,	532	56
19	JAMES PIPER, stock %, CR. From total assets, 3,093.24 } leaves net capital to be subtract total liabilities, 532.56 } credited,			
			3,160	68
13	SILAS PLUMMER, CR.			
	By 2 tubs butter, 62 lbs. .24		14	88
				14 88
A' 17	Monday, 4th.			
	NOTES PAYABLE, CR.			
	By my note of Aug. 24/82, @ 3 mos., issued and delivered to Bolles & Averill,		96	45
	Tuesday, 5th.			
2	ANDREWS, BARKER & BUNTON, CR.			
	By 5 doz. cashmere bouquet soap, 2.70		13	50
	1 box Oolong tea, 42 lbs. .37		15	54
				29 04
	Saturday, 9th.			
B' 3	M. APPLETON, CR.			
	By his note of this date, @ 30 days, received in %,		108	64
	Wednesday, 13th.			
2	ANDREWS, BARKER & BUNTON, CR.			
	By 1 hhd. P. R. molasses, 137 — 7 = 130 gals. .40		52	
	2 bags coffee, 214 lbs. .30		64	20
				116 20
	Amount carried forward,			160 12

[6]

Shirley, Thursday, September 14, 1882.

L. F.	Amount brought forward,				160	12
8	GRAY & HAMLIN,	CR.				
	By invoice of hardware as per their bill,		127	42	127	42
	<i>Tuesday, 19th.</i>					
C' 6	PAUL CHERRYTON,	CR.				
	By M. Appleton's order in his favor rec'd and chgd. M. A. in %,		36			
	<i>Wednesday, 20th.</i>					
D' 9	PATRICK HALPINE,	CR.				
	By J. Pennoyer's order in his favor rec'd and chgd. J. P. in %,		9			
9	PATRICK HALPINE,	CR.				
	By 6 days' labor,	@ 1.50	9		9	
4	BRAY & HAYES,	CR.				
	By 1 doz. Day & Martin's blacking,		8			
	1 " Crosse & Blackwell's pickles,		4		12	
	<i>Saturday, 23d.</i>					
E' 10	M. PEACHAM,	CR.				
	By his note of Sept. 23, @ 30 days, credited in %,		51	54		
	<i>Monday, 25th.</i>					
1	A. F. ADAMS,	CR.				
	By 10 tons hay,	12.	120		120	
	<i>Tuesday, 26th.</i>					
F' 16	NOTES RECEIVABLE,	CR.				
	By M. Peacham's note of Sept. 23, @ 30 days, sold and delivered to A. F. Adams, on his %, indorsed without recourse,		51	54		
	<i>Wednesday, 27th.</i>					
G' 7	CROSBY & BLANEY,	CR.				
	By my note of May 18, @ 4 mos., to Koehler & Co., returned to me, and surrendered in settlement of % of C. & B.		76	67		
	Amount carried forward,				428	54

Shirley, Thursday, September 28, 1882.

[7]

L. F.	Amount brought forward,				428	54
13	SILAS PLUMMER,	CR.				
	By 100 bushels potatoes,	.40	40			
	25 " white beans,	2.	50		90	
	Saturday, 30th.					
18	VALUATION %,	CR.				
	Am't of 1st inventory, Sept. 1, 2,439.87	} By net decrease,	139	87	139	87
	" " 2d " 30, 2,300.					
19	JAMES PIPER (stock %),	CR.				
	Net capital, per balance-	} Net profits are,				
	sheet, Sept. 30, is 3,234.56					
	Less capital Sept. 1, 3,160.68					
		74.19				
	Gross profits to be credited to him are,		148	07		
	Total purchases or outlay upon accounts,				658	41

SECTION 5. — Remarks on James Piper's Books.

THE credit of original capital in Isaac Mason's books (a Subordinate account item) is omitted from the right-hand column of extensions in order to show that the sum of a proprietor's capital at close of a term is equal to the difference between the entire debits and the entire credits to the Ordinary accounts in his Ledger. In James Piper's books, all the items of original assets, liabilities, net capital, and the note and transfer records, are extended short: to include them increases each side equally. The business is that of a country merchant for the term of one month, and similar books may be proved each month by the separate footing of the remaining items as indicated (p. 76). It will be good practice for the student to test this set after the manner of the first proof in Isaac Mason's books. There is less liability to error in posting from the Cash-book when the amounts are checked by a page number, or a sign placed near them. The pages (in brackets) of Day-books and Cash-books in the several sets are continuous in each for convenience of tracing entries; but in actual practice each book is paged separately.

[8] DR.

CASH, SEPTEMBER, 1882.

(Received.)

1882.		TOTAL.	L. F.	ACCOUNTS CREDITED.	RETURNS.
Sept. 1	To J. Piper, bal. per list of assets (<i>posted f'm D. B.</i>),	263 29		263 29	
	“ Mark Peacham, on %,	30	10	30	
	“ Mdse. sold for cash,	56 31	✓		56 31
	“ Paul Cherryton, on %,	10	6	10	
“ 4	“ Notes Receivable, — rec'd money for Wardner's note,	200	16	200	
	“ Mdse. sold for cash,	140 54	✓		140 54
“ 12	“ James Pennoyer, on %,	9	11	9	
“ 15	“ Notes Receivable, — rec'd money for Preaut's note,	152 80	16	152 80	
	“ Paul Cherryton, on %,	20 98	6	20 98	
“ 16	“ Notes Receivable, — rec'd money for Keller's note,	49 51	16	49 51	
“ 19	“ Mdse. sold for cash,	76 23	✓		76 23
	(See memo. of cash balance opposite.)	1,008 66			
“ 21	“ Crosby & Blaney, on %,	92 12	7	92 12	
“ 26	“ Mdse. sold for cash,	116 19	✓		116 19
“ 27	“ Luke Pearson, on %,	59 56	12	59 56	
	“ Crosby & Blaney, “,	25 71	7	25 71	
“ 28	“ Mdse. sold for cash,	64 57	✓		64 57
“ 30	“ “ “ “	59 87	✓		59 87
	Less balance 1st inst.	1,426 68		912 97	513 71
	Cash Dr. net receipts,	263 29			
		1,163 39	15		
	Accounts credited,	912 97			
	Returns (in money) credited,	513 71			
	Total, including bal. 1st and net receipts,	1,426 68			
	October, 1882.				
Oct. 1	To Balance from Sept. 30,	830 18			
	(Sales of mdse. for cash must necessarily consist of many small items daily: there is room here for a total sum for each day only. Items checked thus (✓) are unposted, but extended to outer column.) — See note, p. 83.				

(Paid out.)

CASH, SEPTEMBER, 1882.

CR. [9]

1882.		TOTAL.	L. F.	ACCOUNTS DEBITED.	OUTLAY.
Sept. 2	By Willard & Gerrish, on %,	39 84	14	39 84	
" 4	" Discount on P. Wardner's note, prepaid,	1	✓		1
" 5	" Mdse. bought for cash,	20	✓		20
" 12	" Expense of business trip to Boston,	12 42	✓		12 42
" 15	" Notes Payable, — redeemed my note to Russell & Bro.	114 28	17	114 28	
	" Gray & Hamlin, on %,	85 90	8	85 90	
" 19	" Andrews, Barker & Bunton,	29 04	2	29 04	
	" Expense paid clerk-hire to date,	25	✓		25
	In bank, \$600.00				
	" bills, 75.00				
	" change, 6.18				
	(Cash on hand, \$681.18 + \$827.48 = \$1,008.66.)	327 48			
" 20	" James Piper, on %,	50	19	50	
" 26	" Expense paid fire insurance,	18 75	✓		18 75
" 26	" Abel F. Adams, on %,	8 46	1	8 46	
" 30	" Notes Payable, — redeemed my note to Malbon & Son,	119 42	17	119 42	
	" Expense paid rent of store and stable, 1 mo.	30	✓		30
	" " freight bills,	17 39	✓		17 39
	" " clerk-hire to date,	25	✓		25
		508 50		446 94	149 56
	" Accounts debited,	446 94			
	" Outlay (in money) debited,	149 56			
	Cash Cr. total paid out,	508 50	15		
	Balance on hand forward to Oct. 1,	830 18			
		1,426 68			
	October, 1882.				
	(The break and ruling in these pages, on Sept. 19, are intended to show the manner of settling the cash daily; the total sums on either side are continued along, and balance brought forward only at end of the month.)				

JAMES PIPER'S LEDGER.

INDEX.

	PAGE		PAGE		PAGE		PAGE
Adams, A. F.	1	Cherryton, Paul . . .	6	Notes Payable	17	Plummer S.	13
Andrews, Barker & B. .	2	Crosby & Blaney . . .	7	Notes Receivable . . .	16	Piper, Ja's (stock %),	19
Appleton, M.	3	D, E, F.		O.		Q, R, S, T, U.	
Bray & Hayes	4	Gray & Hamlin	8	Peacham, M.	10	Valuation	18
Bolles & Averill	5	Halpine, P.	9	Pennoyer, J.	11	Willard & Gerriah . .	14
Cash.	16	I, J, K, L, M.		Pearson, L.	12	X, Y, Z.	

Dr.		ABEL F. ADAMS.				(Page 1.)		Cr.	
1882.					1882.				
Sept. 26	To Jersey cow,	4	60	00	Sept. 25	By hay,	6	120	00
	" Peacham, note,	4	51	54					
	" cash,	9	8	46					
			120					120	

		ANDREWS, BARKER & BUNTON.				(Page 2.)			
1882.					1882.				
Sept. 15	To cash,	9	29	04	Sept. 2	By mdse.,	5	29	04
					" 13	" "	5	116	20

		MATTHEW APPLETON.				(Page 3.)			
1882.					1882.				
Sept. 1	To stock,	1	83	52	Sept. 9	By notes receivable,	5	108	64
" 2	" mdse.,	1	2	75					
" 7	" "	2	22	37					
			108	64				108	64
" 19	" P. Cherryton,	3	36	00					
" 21	" mdse.,	3	4	20					

		BRAY & HAYES.				(Page 4.)			
					1882.				
					Sept. 20	By mdse.,	6	12	00

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PAUL CHERRYTON. (Page 6.)

CROSBY & BLANEY. (Page 7.)

GRAY & HAMLIN. (Page 8.)

PATRICK HALPINE. (Page 9.)

1882.				1882.			
Sept. 20	To mdse.,	3	18 00	Sept. 20	By labor, J. Pennoyer,	6 6	9 00
			18				18

JAMES PIPER'S BOOKS.

Dr.		MARK PEACHAM.			(Page 10.)	Cr.		
1882.					1882.			
Sept. 1	To stock,	1	60	49	Sept. 1	By cash,	8	30 00
" 11	" mdse.,	1	10	05	" 23	" note receivable,	6	51 54
" 16	" "	2	5	70				
		3	5	30				
			81	54				

		JAMES PENNOYER.			(Page 11.)			
1882.					1882.			
Sept. 2	To mdse.,	2	9	00	Sept. 12	By cash,	8	9 00
" 12	" "	3	3	75				
" 20	" P. Halpine,	3	9					

		LUKE PEARSON.			(Page 12.)			
1882.					1882.			
Sept. 1	To stock,	1	48	20	Sept. 27	By cash,	8	59 56
" 2	" mdse.,	2	11	36				
" 18	" "	3	2	85				

		SILAS PLUMMER.			(Page 13.)			
1882.					1882.			
Sept. 1	To stock,	1	30	24	Sept. 1	By mdse.,	5	14 88
" 2	" mdse.,	1	3	90	" 28	" "	7	90
" 7	" "	2	14	25				
" 18	" "	3	6	20				

		WILLARD & GERRISH.			(Page 14.)			
1882.					1882.			
Sept. 2	To cash,	9	39	84	Sept. 1	By stock,	5	39 84

JAMES PIPER'S BOOKS.

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Dr.				CASH.				(Page 15.)				Cr.	
1882.				1882.									
Sept. 1	To balance on hand,	1	283	29	Sept. 30	By disbursements,		9	596	50			
" 30	" receipts,	8	1,163	39									

NOTES RECEIVABLE.										(Page 16.)	
1882.					1882.						
Sept. 1	To Wardner, note,	1	200	00	Sept. 4	By cash, Wardner,	8	200	00		
	“ Jaeger, “	1	190		“ 15	“ “ Preaut,	8	152	80		
	“ Edes, “	1	150		“ 16	“ “ Keller,	8	49	51		
	“ Preaut, “	1	152	80	“ 26	“ (A F.A.), Peacham,	6	51	54		
	“ Keller, “	1	49	51							
“ 9	“ Appleton, “	2	108	64							
“ 23	“ Peacham, “	4	51	54							

NOTES PAYABLE.										(Page 17.)	
1882.				1882.							
Sept. 15	To cash, Russell,	9	114	28	Sept. 1	By Russell & Bro.,	5	114	28		
" 27	" (C. & B.), Koehler,	4	76	67		" Koehler & Co.,	5	76	67		
" 26	" cash, Malbon,	9	119	42	" 4	" Malbon & Son,	5	119	42		
						" Bolles & A.,	5	96	45		

VALUATION.										(Page 18.)	
1882. Sept. 1		To 1st inventory,	1	2,439	87	1882. Sept. 30		By decrease, " balance forward,	7	139	87
				2,439	87					2,300	
Sept. 30		To bal. (2d invent'y),		2,300	00					2,439	87

JAMES PIPER. (Stock %.) (Page 19.)											
1882.		To cash, " indse., " credit bal. for'd,	9	50	00	1882.		By net capital, " gross profits,	5	3,160	68
Sept. 20	4		24	19	Sept. 1	7	148		07		
" 29			3,234	56	" 30						
			3,308	75			3,308		75		
					Sept. 30	By net capital,			3,234	56	

Dr.		Balance-Sheet of J. Piper's Ledger, Sept. 30, 1882.				Cr.	
ASSETS.		LIABILITIES.					
Page				Page			
3. M. Appleton,	40.20			2. Andrews, Barker & B.,	116.20		
6. P. Cherryton,	2.30			4. Bray & Hayes,	12.		
11. J. Pennoyer,	12.75			8. Gray & Hamlin,	127.42		
12. L. Pearson,	2.85	58	10	13. S. Plummer,	50.29	305 91	
15. Cash on hand,		830	18	17. Notes payable outst'd'g: viz., —			
16. Notes rec'ble on hand: viz., —				Bolles & Averill,		96 45	
H. Jaeger,	190.			Total debts,		402 36	
R. Edes,	150.			J. Piper, capital invested, 3,160.68			
M. Appleton,	108.64	448	64	Less withdrawn,	74.19	3,086 49	
Total accts., cash, and notes,		1,336	92	Difference, <i>debit</i> bal., gross profit,		148 07	
18. Valuation of stock in store {		2,300					
and stable, etc., }							
Total assets,		3,636	92			3,636 92	

87. It is always a satisfaction to the accountant to know that his work is right ; and, in order to be reasonably sure of it, he must be able to arrive at the same result by two different methods, as follows : viz., —

PROOF OF THE LEDGER.

Dr.		OUTLAYS AND RETURNS.				Cr.	
1882.		OUTLAYS.		1882.		RETURNS.	
Sept. 30		P.		Sept. 30		P.	
	Total credit-book,	7	658 41		Total debit-book,	4	442 33
	" cash-book,	9	149 56		" cash-book,	8	513 71
	Entire outlay,		807 97				
	Credit bal., net returns,		148 07				
			956 04				

Thus showing a *credit* balance, or remainder, equal to the *debit* remainder of the Balance-sheet. Entries in a Ledger ought never to be made, except by posting or transfer from the record of a transaction in the original book where the item belongs in its regular order ; discrepancies in proof, caused by making first entries in a Ledger and omitting them in original books, are troublesome, and hard to find.

The Proof of James Piper's Books.

88. The posting shown by James Piper's Ledger is no more nor less than what is absolutely required to embody a complete statement of his assets and liabilities in that book. The entries on both Debit and Credit Day-books, recording the transactions in notes, and also those relating to transfers of credit between personal accounts, are extended short; that is, they are kept out of the right-hand columns, and leave them clear for the addition of all other classes of items. The footing of the Debit Day-book gives the total sales, or *returns*, on accounts: the footing of the Credit Day-book gives the total purchases, or *outlay*, on accounts.

Certain unposted items of sales, purchases, or expenditures, on either side of the Cash-book, are extended into columns at the right hand for the sake of convenience in footing. The column on the *debit* side of the Cash-book gives the total *returns* in cash: the column on the *credit* side of the Cash-book gives the total *outlays* in cash. Considering how these items should be stated, we say, that, provided we pay out money for an outlay, Cash is creditor for money paid out, and therefore, by analogy, Outlay is debtor; and, provided that we receive money for a return, we say that Cash is debtor for money received, therefore, by analogy, Return is creditor. Combining the two reasonings, we get a new principle; namely, that accounts intended to exhibit outlays and returns should be debited with outlays and credited with returns: and also another principle; that is, that such accounts, in common with the Stock account and contrary to the Ordinary accounts, show decrease on their debit side, and increase on their credit side, of the proprietor's financial strength. The form of account, and classes of items, on either side, are stated as follows:—

Debtor.	OUTLAYS AND RETURNS.	Creditor.
Purchases, or cost of goods or labor bought.	||	Sales, or returns for goods or labor sold.
Payments for interest, commissions, labor, services, current expenses, and losses.	||	Receipts for interest, commissions, labor, services, fees, and profits.
Decrease in Valuation account.	||	Increase in Valuation account.

No attempt is made here to subdivide this account into abstract heads of receipt or expenditure, that subject being treated in the department of Subordinate accounts.

Example 1.

89. Assume that you begin business with a cash capital of \$2,700 on Oct. 1 of the current year; that you owe no debts, and propose to deal in furniture.

Oct. 1. Bought of James Greenwood & Co., on account, 12 chamber-sets, complete, @ \$40 each. *Oct. 2.* Bought of Thorndike & Rice, on account, 200 chairs @ \$1 each. *Oct. 3.* Bought of Allen & Foster, on account, assorted furniture, amounting to \$627.76. *Oct. 4.* Sold to Henry Cowper, on account, 1 ladies' patent rocker, \$20; 1 rattan rocking-chair, \$6; 1 bottle furniture polish, 66 cts. Sold to John Kimball, on account, 50 yds. carpet @ \$1; 35 yds. lining @ 10 cts.; 1 pr. live-geese pillows, \$7; 1 live-geese bolster, \$5; 1 fancy table, with checker top, \$9; 1 child's high-chair, \$2.42; and he paid \$30 cash, on account. *Oct. 5.* Bought, on account, from Plimfield & Shepton, 1 French plate pier-glass and frame for \$23.42. *Oct. 6.* Paid Plimfield & Shepton \$21.08 cash, on above bill, there being a discount of 10% allowed. *Oct. 7.* Sold, on account, to Thomas Demond, 1 chamber-set, \$45; 1 40-lb. hair mattress @ 50 cts. per lb.; 1 pr. live-geese pillows, \$6; 1 live-geese bolster, \$5.50; 3 window-shades and fixtures, put up, @ \$2 each; extra trimmings for curtains, 98 cts.; and he paid \$60 cash, on account. *Oct. 8.* Paid Thorndike & Rice \$200 on account. Sold assorted merchandise for \$86.37 cash. *Oct. 9.* Paid Allen & Foster \$419.76 in cash, on account. *Oct. 10.* Sold Henry Delano goods amounting to \$152.24, for which you received his note, of the same date, at 60 days. *Oct. 11.* Sold merchandise, \$196, for cash. *Oct. 13.* Sold merchandise amounting to \$500 for cash. *Oct. 15.* Henry Cowper paid \$20 cash, on account. *Oct. 22.* Bought of Charles Page goods amounting to \$208.19, for which you give your own note, of this date, at 90 days. *Oct. 25.* Paid cash for store fixtures, \$50. *Oct. 26.* Paid for labor, \$50 cash. *Oct. 31.* Paid for rent of store, \$100 cash. *Oct. 31.* The valuation of the stock of goods remaining in store is \$725.

Required an exhibit of the above items in Debit and Credit Day-books, Cash-book, and Ledger, with a statement of the result in the form of a balance-sheet, and also its proof, showing profit or loss made. Write out the H. Delano and C. Page notes respectively, as to and from yourself.

Example 2.

90. Suppose the following to be a record of your own business for one week.

April 3, 1882. — Cash on hand, \$2,500. Paid for stationery, \$7. Bought of James Martin merchandise as per invoice, \$3,800, and paid him \$1,800 on account. Cash sales, \$112.

April 4. — Paid for insurance of stock of goods, \$20. Sold to Henry Jones, on account,

10 yds. calico @ 11 cts., 5 yds. calico @ 21 cts., 18 yds. sheeting @ 11 cts., and 4 yds. cassimere @ \$2 per yd. He pays \$10 on account. Cash sales, \$175.

April 5. — Paid \$15 for personal expenses, and \$5 for clerk-hire. Sold to Robert C. McDonald, on account, 15 yds. cloth @ 90 cts., and 20 yds. broadcloth @ \$2 per yd. Cash sales, \$87.23.

April 6. — Cash sales, \$100. Received W. Percival's note, at 30 days, \$190, for merchandise sold him.

April 7. — Paid for stationery \$6.50, and for painting, \$2.50. R. C. McDonald pays \$13.50 on account. Cash sales, \$175. Lent to James Ewart \$250 cash, for which he gives his note, payable in three months, with interest at 7% per annum.

April 8. — Paid clerk for one week's services, \$15. Bought of Henry Jones merchandise on account, \$15; settled the balance of his account in money. Cash sales, \$112. The value of merchandise, on taking account of stock at end of week, is \$2,798.14.

Enter the foregoing in Day-books and Cash-book, and post to a Ledger. Make a financial statement showing resources, liabilities, and net gain or loss for the week. Prove it by footings of Day-books and Cash-book. Make a statement of Henry Jones's account. Write the notes given by James Ewart and W. Percival, and the receipt from James Martin.

CHAPTER XI.

A Set of Farmer's Books.

91. The following set of books is intended to show a farmer's financial business for one year: the exhibit is necessarily very much condensed, and the entire year is stated as one month would be in actual practice. The note entries of this set are not separated into two parts, but are made as they would ordinarily be in business; one entry sufficing, provided that each side of it be posted to its proper account. This is the clearest and most concise way of entering such transactions. The nominal cost of production in the expenditure for stock, seed, fertilizers, hired labor, etc., is all that is apparent in such an account: the real cost in the proprietor's own labor does not appear. The principal subsistence of the family and of the live-stock, as well as the produce sold, is assumed to have been grown on the place.

DEBIT DAY-BOOK.

[1]

Lenox, Saturday, April 1, 1882.

		LIST OF MY ASSETS this day, debited to following accounts: viz., —					
L. F.	3	PORTER KIMBALL owes me on $\frac{1}{2}\%$,	84	27			
	4	THOMAS LIVERMORE " " "	28	19			
	9	CALVIN SPAULDING " " "	58	31		168	77
	12	CASH on hand, as per cash-book,				106	15
	13	NOTES RECEIVABLE on hand; viz., — March 1, 1882, demand, Ira Younglove, Nov. 19, 1881, 6 mos., Alfred Ordway,	50 250			300	
	15	VALUATION of other property; viz., — Real estate, farm and buildings, at assessor's valuation, Personal property, as per inventory,	2,500 1,189	50		3,689	50
		(For list of debts see credit day-book.) Total assets,				4,264	42
		Monday, April 10, 1882.					
	11	ABEL E. THURSTON, DR. To 1 steer, " 1 calf,	28 7	50		33	50
		Tuesday, July 11, 1882.					
	3	PORTER KIMBALL, DR. To 25 tons hay, 15.00				375	
		Tuesday, Oct. 10, 1882.					
	6	DANIEL PUTNAM, DR. To 200 bushels corn, .64 " 250 " oats, .55 " 25 " wheat, 1.10 " 300 " potatoes, .58	128 137 27 174	50 50		467	
		Saturday, Oct. 14, 1882.					
	5	JOEL PAGE, DR. to NOTES PAYABLE, CR.					
	14	Issued my note of Sept. 15, 1882, at 6 mos., to his order,	175				
		Saturday, March 31, 1883.					
	15	VALUATION $\frac{1}{2}\%$, DR. Amount of inventory this date, 3,721.50 } balance, Less amount of inventory last year, 3,689.50 } net increase,				32	
		Total sales or returns,				907	50

CREDIT DAY-BOOK.

Lenox, Saturday, April 1, 1882.

[2]

		LIST OF MY DEBTS this day, credited to following accounts: viz., —				
L. F.	8	ROBERT SAMPSON, due him on %,	19.29			
	1	CHARLES DERBY, " "	40.71	60	00	
	14	NOTES PAYABLE outstanding; viz., — March 19, 6 mos., Wm. Hartwell, Feb. 11, 90 days, Geo. Daniels,	200.00 75.	275		
		Total debts,		335		
	16	WM. POWELL (stock %), Total assets, per debit-book, Less total debts, per credit-book, Net capital to his credit,	CR. 	4,264 335 3,929	42 42	
		Saturday, April 8, 1882.				
	10	DANIEL STEARNS, By 20 loads wood-ashes,	CR. @ 1.00	20		20
		Monday, April 17, 1882.				
	2	QUINCY DIX, By 51½ cords fertilizers,	CR. @ 4.00	207		207
		Thursday, Sept. 7, 1882.				
	7	JOHN RADFORD, By his labor from Ap. 1/82 to date, inc. (5 mos. 7 d.), @ 15.00	CR. 	78	50	78 50
		Thursday, Sept. 14, 1882.				
	5	JOEL PAGE, @ 6 months, By 1 yoke of oxen, " 1 " " steers,	CR. 	120 55		175
		Saturday, Oct. 14, 1882.				
	13	NOTES RECEIVABLE, DR. to DANIEL PUTNAM, CR.				
	6	Received his note of Oct. 11, 1882, @ 6 mos., to my order, Total purchases or outlay,		267		480 50

[3] DR.

CASH.

(Received.)

		TOTAL.	L. F.	ACCOUNTS CREDITED.	RETURNS.
1882.					
April 1	To Wm. Powell, bal. (posted from debit-book),	106 15		106 15	
" 9	" Calvin Spaulding, on %,	58 31	9	58 31	
" 12	" 5 tons hay @ \$20 (sold),	100	✓		100 00
" 13	" Porter Kimball, on %,	84 27	3	84 27	
May 4	" Thomas Livermore,	26 19	4	26 19	
" 15	" Notes rec'ble, I. Younglove, for his note,	50	13	50	
	" interest paid by him,	67	✓		67
" 16	" Abel E. Thurston, on %,	33 50	11	33 50	
July 25	" 35 tons hay @ \$15,	525	✓		525
Aug. 12	" Porter Kimball, on %,	250	3	250	
" 31	" 5,400 qts. milk, from May 1 to date, @ 6 cts.,	324	✓		324
	" 90 lbs. butter, from May 1 to date, @ 30 cts.,	27	✓		27
Sept. 1	" 100 bu. potatoes @ 60 cts.,	60	✓		60
" 7	" 10 cheeses, 320 lbs., @ 15 cts.,	48	✓		48
" 8	" 30 spring chickens @ 50 cts.,	15	✓		15
" 22	" Notes rec'ble, A. Ordway, for his note,	250	13	250	
	" interest for 4 months paid by him,	5	✓		5
Oct. 1	" 100 bbls. onions @ \$3.50,	350	✓		350
" 15	" 75 " apples @ \$2,	150	✓		150
" 18	" Daniel Putnam, on %,	200	6	200	
" 25	" 80 bu. turnips @ 40 cts.,	32	✓		32
	" 30 tons beets @ \$10,	300	✓		300
Nov. 5	" 2,354 heads cabbage @ 8 cts.,	188 32	✓		188 32
1883.					
Jan. 15	" 8 dressed hogs, 2,418 lbs., @ 7 cts.,	169 26	✓		169 26
Feb. 2	" 25 cords hard wood @ \$4,	100	✓		100
		3,452 67		1,058 42	2,394 25
	Less balance April 1, 1882,	106 15			
	Cash Dr., net receipts during year,	3,346 52	12		
		1,058 42			
		2,394 25			
		3,452 67			
	<i>April, 1883.</i>				
April 1	To balance brought forward from March,	1,199 42			

(Paid out.)

CASH.

CR. [4]

		TOTAL.		L. F.	ACCOUNTS DEBITED.		OUTLAY.	
1882.								
Apr. 14	By Robert Sampson, on %,	19	29	8	19	29		
" 15	" new subsoil-plough (bought),	30		✓			30	00
" 18	" Quincy Dix, on %,	50		2	50			
May 9	" Daniel Stearns,	20		10	20			
" 14	" Notes payable, paid my note to Daniels,	75		14	75			
	" groceries for family,	49	54	✓			49	54
June 15	" daughter's graduating outfit,	25		✓			25	
" 30	" John Radford, on %,	30		7	30			
July 1	" subscription to celebration on 4th inst.,	10		✓			10	
" 5	" groceries for family,	52	37	✓			52	37
" 29	" labor hired in spring and summer,	480		✓			480	
Aug. 1	" John Radford, on %,	10		7	10			
" 7	" church subscription,	50		✓			50	
" 15	" board of laborers to date,	125		✓			125	
" 31	" 4 cows (bought in May),	120		✓			120	
Sept. 7	" John Radford, balance in full, on %,	38	50	7	38	50		
" 8	" new chamber-set and carpet,	85		✓			85	
	" 6 hogs, to be fattened, @ \$10,	60		✓			60	
" 19	" Notes payable, paid my note to Hartwell,	200		14	200			
" 22	" Charles Derby, on %,	40	71	1	40	71		
" 25	" Quincy Dix,	157		2	157			
Oct. 1	" 175 empty barrels @ 20 cts.,	35		✓			35	
	" taxes, town of Lenox, for 1882,	18	50	✓			18	50
" 15	" clothing and supplies for family,	127	34	✓			127	34
" 31	" labor from Aug. 1 to date,	100		✓			100	
Dec. 15	" " on wood-lot,	40		✓			40	
	" subscriptions to magazines and papers,	20		✓			20	
1883.								
Jan. 15	" subscription to Farmers' Club,	10		✓			10	
Mar. 18	" Notes payable, paid my note to Joel Page,	175		14	175			
		2,253	25		815	50	1,437	75
		815	50					
		1,437	75					
Cash Cr., disbursements during year,		2,253	25	12				
Balance forward to April 1, 1883,		1,190	42					
		3,452	67					
April, 1883.								
<p>Entries should be made at first in total columns only, and extended into the others at leisure; the total columns are convenient in balancing cash and proving the other columns. They are sometimes omitted in practice.</p>								

WILLIAM POWELL'S LEDGER.

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	PAGE		PAGE		PAGE		PAGE
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Cash	12	M.		Q.		U.	
Derby, Charles	1	Notes Payable	14	Radford, John	7	Valuation	15
Dix, Quincy	2	Notes Receivable	13	Sampson, Robert	8	W, X, Y, Z.	
E, F, G, H, I, J.		Page, Joel	5	Spaulding, Calvin	9		
Kimball, Porter	3	Powell, William	16	Stearns, Daniel	10		

Dr.		CHARLES DERBY.				(Page 1.)		Cr.	
1882.						1882.			
Sept. 22	To cash,	4	40	71	April 1	By stock,	2	40	71

		QUINCY DIX.				(Page 2.)			
1882.					1882.				
April 18	To cash,	4	50	00	April 17	By mdse.,	2	207	00
Sept. 25	" "	4	157						
			207					207	

		PORTER KIMBALL.				(Page 3.)			
1882.					1882.				
April 1	To stock,	1	84	27	April 13	By cash,	3	84	27
July 11	" mdse.,	1	375		Aug. 12	" "	3	250	

		THOMAS LIVERMORE.				(Page 4.)			
1882.					1882.				
April 1	To stock,	1	26	19	May 4	By cash,	3	26	19

		JOEL PAGE.				(Page 5.)			
1882.					1882.				
Oct. 14	To note, Sept. 15, 6 m.,	1	175	00	Sept. 14	By mdse.,	2	175	00

Dr.		DANIEL PUTNAM.				(Page 6.)		Cr.	
1882.					1882.				
Oct. 10	To mdse.,	1	467	00	Oct. 14	By note, Oct. 11, 6 m.,	2	267	00
					" 18	" cash,	3	200	
			467					467	

		JOHN RADFORD.				(Page 7.)			
1882.					1882.				
June 30	To cash,	4	30	00	Sept. 7	By labor,	2	78	50
Aug. 1	" "	4	10						
Sept. 7	" "	4	38	50					
			78	50				78	50

		ROBERT SAMPSON.				(Page 8.)			
1882.					1882.				
April 14	To cash,	4	19	29	April 1	By stock,	2	19	20

		CALVIN SPAULDING.				(Page 9.)			
1882.					1882.				
April 1	To stock,	1	58	31	April 9	By cash,	3	58	31

		DANIEL STEARNS.				(Page 10.)			
1882.					1882.				
May 9	To cash,	4	20	00	April 8	By mdse.,	2	20	00

		ABEL E. THURSTON.				(Page 11.)			
1882.					1882.				
April 10	To mdse.,	1	33	50	May 16	By cash,	3	33	50

Dr.		CASH.				(Page 12.)		Cr.	
1882.	April 1	To stock,	1	106	15	1883.	Mar. 31	By disbursements,	4 2,253 25
1883.	Mar. 31	" receipts,	3	3,346	52				

NOTES RECEIVABLE. (Page 13.)									
1882.	April 1	To Younglove, note,	1	50	00	1882.	May 15	By cash, Younglove.	3 50 00
		" Ordway, "	1	250			Sept. 22	" " Ordway,	3 250
	Oct. 14	" Putnam, "	2	267					

NOTES PAYABLE. (Page 14.)									
1882.	May 14	To cash, Daniels,	4	75	00	1882.	April 1	By Daniels, note,	2 75 00
	Sept. 19	" " Hartwell,	4	200			Oct. 14	" Hartwell, "	2 200
1883.	Mar. 18	" " Page,	4	175				" Page, "	1 175
				450					450

VALUATION. (Page 15.)									
1882.	April 1	To 1st inventory,	1	3,689	50				
1883.	Mar. 31	" net increase,	1	32					
	April 1	" total, 2d invent'y,		3,721	50				

WILLIAM POWELL. (Stock %.) (Page 16.)									
						1882.	April 1	By net capital,	2 3,020 42

Dr. **Balance-Sheet of William Powell's Ledger, March 31, 1883.** Cr.

ASSETS.			LIABILITIES.		
3. Porter Kimball (owes),	125	00	(None.)		
12. Cash, balance on hand,	1,199	42	16. William Powell, stock, —		
13. Notes receivable on hand ;			Original net capital invest. }	3,929	42
viz., D. Putnam,	287		Difference debit bal., profit,	1,383	50
15. Valuation per 2d inventory,	3,721	50			
Total assets,	5,312	92	Final net capital,	5,312	92

PROOF OF THE LEDGER.

OUTLAYS AND RETURNS.

1883.	OUTLAYS.	P.			1883.	RETURNS.	P.		
Mar. 31	Total per cash-book,	4	1,437	75	Mar. 31	Total per cash-book,	3	2,394	25
	“ “ credit-book,	2	480	50		“ “ debit-book,	1	907	50
	Total outlay,		1,918	25		/			
	Cr. bal., net returns,		1,383	50					
			3,301	75				3,301	75
						Total returns,			

Example C.

92. Suppose yourself the proprietor of a stationer's business. Enter and post the following items. Show and prove the result by a balance-sheet of the Ledger and footings of the original books.

Monday, June 19, 1882. — Accounts due me : Waldo Jordan, \$50.92 ; Geo. Little & Co., \$118.75 ; Howard Field & Bros., \$12.08. Cash on hand, \$675. Notes which I own and hold : viz., J. Hook & Co., June 1, on demand, \$150 ; F. Reed & Son, June 10, one month, \$90. Value of goods in store, per first inventory, \$3,500. Account due to W. G. Plumb & Co., \$154.62 ; due to Dow & Alden, on account, \$65.17. My notes unpaid are held by F. Shaw (June 4, on demand) for \$119.83, and by Wells & Emery (June 12, on demand) for \$175.12. I do business as follows : —

June 19. — Sold to H. Field & Bros. 1 demy sheep ledger @ \$10, 1 four-qr. Russia ledger @ \$3.50. Cash sales, \$65.50. Sold to W. Jordan 1 ream bill-heads @ \$10, and he paid me cash, \$60.92, on account. Bought of Maynard & Noyes 1 gross qts. ink @ \$60 per

gross, less 10% discount. Merchandise sold for cash, \$75.80. Paid W. G. Plumb & Co. \$154.62 cash, on account; paid Dow & Alden cash, on account, \$65.17.

June 20. — Sold G. Little & Co. 5 M. envelopes @ \$2 per M., and 3 half Russia three-qr. account-books @ \$2.50 each. Bought of W. G. Plumb & Co. 15 gross pencils @ \$4 per gross, and 5 gross pencils @ \$3.50 per gross, less 10% discount on all. Received from G. Little & Co. their note of this date, on demand, for \$100, and \$18.75 cash, on account. Cash sales, \$84.62. Paid my note to Wells & Emery, \$175.12.

June 21. — Sold to Otis Bent & Co. 1 half Russia four-qr. ledger, \$3.50; 1 two-qr. cash-book, \$2.25; 1 two-qr. sales-book, \$2.25; 2 doz. pass-books @ 50 cts. per doz.; and 1 gross ~~404~~ pens, \$1.12. Sold to the Town of Wilton 1 half Russia three-qr. record-book, \$3.25, and 6 indexed poll-books @ \$5.50 each. Sold to Mechanics' Bank 1 full Russia, three-qr., printed-head note-book, \$5.50. Cash sales, \$59.45.

June 22. — Sold to Lovett & Davis 1 engraved check-book (300 checks), with stamps, \$9.50. Sold to County of Sussex 1 ruled and printed-head pay-roll, \$4.25; 1 ream letter-paper, \$3.50; and 1 bottle M. & N. ink, \$1. Sold to Citizens' Gas Co. 1 half Russia two-qr. account-book, \$2.25; 1 cap index, 65 cts.; and 1 doz. pencils, 75 cts. Bought of Dow & Alden 10 reams blue-wove letter-paper @ \$4.50 per ream, less 10% discount. Received the money for J. Hook & Co.'s note, \$150. Paid for fixing shelving \$1.25. Cash sales, \$60.18.

June 23. — Cash sales, \$67.43. Sold to H. Rudder & Co. (for brig "Fawn") 1 printed four-qr. log-book, \$4; 1 cargo delivery-book, 20 cts.; 1 qr. ship receipts, 30 cts.; and 4 sheets bill of sale, 24 cts. Sold to W. Jordan 1 ream R.R. receipts, \$9. Sold to Ross & Dexter 1 long cap six-qr. sales-book, \$3.50; 1 ream letter-paper, \$4.50; and 2 M. printed envelopes @ \$3.50 per M. Bought of L. Kane & Co. 50 M. envelopes @ \$2 per M., and 100 M. envelopes @ \$1.50 per M., less 15% discount.

June 24. — Gave my note of this date, on demand, to L. Kane & Co., for \$200. Paid them \$12.50 cash, on account. Paid cash for clerk-hire, \$12, and for book-binders' work, \$25. Received from H. Field & Bros. \$25.58, on account. Value of goods in store at close of the week is estimated to be \$3,500, or the same as at the opening.

BOOK-KEEPING.

DOUBLE ENTRY.

CHAPTER XII.

SECTION 1. — Subordinate Accounts.

93. IN accounts of trust estates and corporations, and oftentimes of a private business, it is necessary to record the kinds of investment, and the component parts of income and expenditure, in such a way as to show how and why profits or losses have arisen : hence, in double-entry book-keeping, items of outlay and return are divided into sub-heads, and stated in a different manner from that explained in the single-entry section.

We class the annexed accounts under the head of SUBORDINATE ACCOUNTS in order to distinguish them from the Ordinary Accounts, which bear an opposite relation to a business.

- I. Outlay and Return.
II. Stock (pages 45 and 46).

It has been demonstrated that debits and credits to the Ordinary accounts show, respectively, increase and decrease of resources. On the other hand, debits and credits to the Subordinate accounts show, respectively, decrease and increase of resources. The truth of these assertions will be evident upon careful consideration of the forms of the two classes. The explanation is, that, in double-entry book-keeping, the one side of the Subordinate accounts shows and proves the same result as the opposite side of the Ordinary accounts. All Subordinate accounts, except the Stock account, exhibit purchases, investment, expenditure, losses, sales, income, or profits.

SECTION 2. — Outlay and Return Accounts.

94. These accounts show the losses or gains under particular heads. The titles express the nature of the business whence losses or profits are derived ; as, for example, Merchandise, Real Estate, Manufacturing, Building, Ships, Machinery, Railroad, Bank or other stocks by name, Corn, Wheat, Live-stock, Interest, Expense, Guaranty, Commission, etc. Detached accounts may be kept separately without reference to the entire system. In all Outlay and Return accounts, purchases, expenditures, or losses are entered upon the debit side ; sales, returns, or profits are entered upon the credit side. These rules are invariable, and should always be observed.

<i>Dr.</i> (Purchase, Expenditure, or Loss.)		<i>Merchandise.</i>		(Sales, Returns, or Profits.)		<i>Cr.</i>
On hand at opening, butter,	300 lbs. @ .15	45	00	Sold butter,	1,000 lbs. @ .20	200 00
Bought butter,	1,200 " @ .15	180		On hand at closing,	500 lbs. at cost, .15	75
Total quantity and cost,	1,500 lbs. @ .15	225				
Credit balance, profit on	1,000 lbs. @ .05	50				
		275				275
On hand at second opening, brought down for new account, 500 lbs. butter @ .15,		75				

In the above example of a Merchandise account we begin a term of business with 300 lbs. of butter on hand, costing, @ 15 cts., \$45, and buy 1,200 lbs. more at the same price ; making in all 1,500 lbs. @ 15 cts., equal to \$225. We sell 1,000 lbs. @ 20 cts., thus affording a profit of 5 cts. per lb., equal to \$50 ; and we have the remaining 500 lbs. on hand, worth, at cost, 15 cts., equal to \$75. In an Outlay and Return account representing property of fluctuating value, the *valuation* of property on hand at beginning is placed on the debit side ; the sums of purchases or expenditure are also placed on the debit side. The amount of sales, returns, or profits is placed on the credit side ; the *valuation* of property remaining on hand at the close of a business term is placed on the credit side. The excess of the sum of the credit side above the debit side will be the profit. When the debit side is larger than the credit side, a loss is shown. The *valuation* of the goods on hand is brought forward on the debit side for a new account. Real Estate, and all other property accounts, are treated in the same way. The value of property on hand, as shown by an inventory, would be included in a list

of assets. As the account now stands, — considering the item of 500 lbs. butter (\$75) alone on the debit side, — it shows the *valuation* of butter on hand, just as the Cash account shows the sum of money on hand ; and, if the *cost only* of butter sold was placed on the credit side, it would continue to show it. This is practically impossible in any general business ; and, as the account is usually kept, the value of goods on hand can be known only after taking an inventory. The amount of this inventory would be credited to Merchandise, and brought forward, like the 500 lbs. of butter. Hence the Valuation account has been introduced in this book to avoid misapprehension. Below is a summary of the form of this class of account.

Debtor.		Creditor.
Opening valuation of the particular kind of property at commencement of a business term.	} OUTLAY AND RETURN. }	Sales, returns, or profits.
Purchases, expenditure, or losses.		Closing valuation of property at end of a business term.

The form of the Outlay and Return accounts is derived by analogy from that of the Cash account: thus, if we pay out cash for an expense item, then Cash is creditor by Expense, and therefore Expense account is debtor to Cash ; and so with any other title in this class. The following heads of account are stated in detail in order to show what classes of items belong upon their respective sides.

Dr.	(Outlay.)	Real Estate, No. 1049 Henry Street.		(Return.)	Cr.		
1882. Apl. 29	To mortgage note,	1,500	00	1882. Sept. 30	By cash for rent,	110	00
	“ cash for balance,	2,500			“ “ “ deed,	4,900	
	“ “ “ exam. title,	18	50				
	“ “ “ record. deed,	1	50				
	“ “ “ insurance,	12					
July 1	“ “ “ repairs,	128	65				
Sept. 30	“ “ “ taxes,	32					
	“ interest to date,	102	72				
	Total outlay,	4,295	37				
	“ credit balance, profit,	714	63				
		5,010	00				
					Total return,	5,010	00

Real Estate may be sold subject to a mortgage, but in the above account the mortgage is assumed to have been discharged before the sale.

OUTLAY AND RETURN ACCOUNTS.

<i>Dr.</i>		<i>(Outlay.)</i>		<i>Interest.</i>		<i>(Return.)</i>		<i>Cr.</i>	
1882.				1882.					
April 7	To disc., D. Fox's acct.,	29	80	Apr. 14	By S. Stone's acct.,	14	80		
May 1	" " S. Lane's " "	54	27	May 21	" cash, N. Burns,	21	97		
	" cash, dis. W. Lee, note,	11	31	June 9	" R. Knight's acct.,	4	37		
				" 30	" cash, sundry items,	591	27		
	Total outlay,	95	38						
June 30	" <i>credit</i> balance, profit,	537	08						
		632	41						
				</					

(Outlay.)		Expense.		(Return.)			
1882.				1882.			
June 30	To H. Cobb, 1 qr. salary,	200	00	Sept. 19	By cash returned,	2	50
	“ N. Weld, 1 “ rent,	250		“ 30	“ debit balance, loss,	503	37
July 21	“ cash for stationery,	24	60				
Aug. 30	“ “ “ sundry items,	31	27				
	Total outlay,	505	87			505	87

(Outlay.)				Profit and Loss.		(Return.)	
1882.	To expense, loss, " J. Davis, insolvent, Total outlay, " credit bal. to stock acct.,	503	37	1882.	By mdse., profit, " real estate, profit, " interest, profit, Total returns,	50	00
Sept. 30		200		Sept. 30		714	63
		703	37			537	03
		598	29				
		1,301	66				
						1,301	66

95. The Merchandise, Real Estate, Interest, Expense, and Profit and Loss accounts, examples of which are given, are commonly used in business. The net loss or gain resulting under each head respectively, is transferred to the Profit and Loss account. The net profit or loss resulting under all the heads, and collected together under the head of Profit and Loss, is carried from that account to the Stock account. When a debtor has become insolvent, and there is no hope of collecting any thing from his account, it is closed by transferring its balance to the debit side of the Profit and Loss account. This is supposed to have been done with an account of J. Davis, as will be seen in the Profit and Loss account.

In order to transfer items from one account to another it is necessary to observe the following system: 1. *To transfer a debit item*, credit the account from which it is taken, and debit the account to which it is to be carried; 2. *To transfer a credit item*, debit the account from which it is taken, and credit the account to which it is to be carried.

SECTION 3. — Examples for Practice.

96. The following example of a Cornfield account is stated in order to show the cost and return of a crop of corn: it is the same in principle as the Outlay and Return accounts of double-entry book-keeping. The form may be applied to any transaction upon which it is required to find the gain or loss.

<i>Dr.</i>		<i>(Outlay.)</i>		<i>Three-Acre Cornfield.</i>		<i>(Return.)</i>		<i>Cr.</i>
1882.				1882.				
May 15	To 64 l'ds compost @ .50	32	00	Oct. 11	By 10 loads stalks @ 3.00	30	00	
	" 3½ d'ys' ploughing 2.	7		Nov. 7	" 245 bu. corn 1.	245		
" 27	" 3 " planting 2.	6						
	" ½ bu. seed-corn .90		45					
	" Plaster,	1	55					
June 24	" 2½ days' hoeing 2.	5						
July 14	" 2½ " " 2.	5						
Sept. 30	" 3 " cutting 2.	6						
Oct. 9	" husking 245 bu. .08	7	35					
	" int. on 3 acres 150.	9						
	Total cost,	79	35					
	" credit balance, profit,	195	65					
		275						275

Example 1.

97. A Merchandise account. Required a formal statement of purchases, sales, and profit.

Jan. 1, 1882. I have on hand, in merchandise, \$40,000. Jan. 5. I sell \$2,149.50, and buy \$4,322.40. Jan. 13. I sell \$12,360.51. Jan. 15. I sell \$19,536.61. Jan. 20. I sell \$14,726.80, and buy \$10,764.72. Jan. 25. I sell \$3,391.64. Jan. 31. Merchandise on hand, \$7,846.34.

Example 2.

98. A FIELD OF OATS. — The following is an account of expenses and returns on a field containing 172 sq. rds. planted with oats. Required the profit on the field.

April 15, 1882. Spread 5 cords compost, costing, with labor, \$4 per cord. *April 18.* Ploughed and cross-ploughed, costing, with labor, \$2 in all. *May 2.* Sowed and harrowed, costing, with labor, \$2.25 in all; 2 bush. seed-oats @ 75 cts. *Aug. 12.* Finished harvesting, at cost of \$6.38. *Aug. 17.* Threshing and cleaning, \$4.12; interest and taxes on land, \$7.20; gathered 87 bush. oats @ 55 cts. per bush., and 4,500 lbs. straw @ \$1 per 100 lbs.

Example 3.

99. ONE ACRE OF CORN.—The following is a statement of expenses and returns on a field of poor land planted with corn. Required expenditure and income, and the profit or loss.

April 18, 1882. Hauled 8 loads of compost, costing, with labor of hauling, \$5 per load, *April 20.* 2 men's work, 1 day each, ploughing and spreading, @ \$1.50 per day. *May 1.* 1 man for $\frac{3}{4}$ day, harrowing, @ \$1.50 per day. *May 2.* Paid for seed-corn, 30 cts.; plaster and ashes in the hills, 75 cts.: furrowing and planting, 1 man 1 day, @ \$1.50. *June 1.* 2 men and a horse, cultivating and hoeing, cost \$2.75. *June 27.* Same as last item. *Oct. 23.* Harvesting, 2 men for 2 days each, @ \$1.50 per day; interest and taxes on land, \$2; gathered 48 bush. corn at 90 cts., 5 bush. small corn @ 60 cts., 4 loads stover @ \$2 per load.

Example 4.

100. Sheep Grazing account. Required outlay and income, and the profit or loss.

May 25, 1882. Bought 150 sheep, @ \$1.50 each, for cash. *Nov. 20.* Turned the sheep into a fold from the pasture where they have been since their purchase; pasturing and care estimated @ 3 cts. per month for each sheep. *March 19, 1883.* Fed the sheep on hay from time of folding until Feb. 1; estimated cost, 13 cts. per head per month. From Feb. 1 to March 19, fed them $2\frac{1}{4}$ bush. oats per day @ 40 cts. per bush., and turned them into pasture March 19. *May 25.* Cut from the flock 540 lbs. wool @ 50 cts. per lb.; washing and shearing cost 5 cts. per head. *June 2.* Sold 60 old sheep, at \$1.37 $\frac{1}{2}$ each, for cash, and have on hand now 82 old sheep worth \$1.50 each, and 41 lambs worth 87 $\frac{1}{2}$ cts. each. Pasturage from date of turning out to June 2 cost 3 cts. per head per month. Interest at 6% on cost of sheep must be reckoned.

Example 5.

101. A Poultry account. Required receipts, expenses, and profit.

I began on Sept. 1 with 4 hens @ 75 cts., 8 pullets @ 50 cts., and 1 rooster at \$1. There was fed to them $6\frac{1}{2}$ bush. oats @ 50 cts.; 4 bush. corn at \$1.05; 4 bush. Indian meal @ \$1.08; potatoes, shorts, and scraps from table, worth \$3.75; oyster-shells and pepper, worth \$1.05. I have received from them during the year 116 $\frac{1}{2}$ doz. eggs @ 24 cts. per doz. I sold, in August, 20 spring chickens @ \$1 each, and used 5 on my own table, worth 75 cts. each. I sold, in November, 4 hens, weighing 4 lbs. each, @ 20 cts. per lb. I have left 8 laying pullets worth 75 cts. each, 10 pullets worth 50 cts. each, and 1 cockerel worth \$1.

Example 6.**102. Beechnut Farm account. Required the profit for the year.**

April 1, 1882. The value of the farm, buildings, live-stock, tools, and produce at this date is \$3,869.50. Paid for fertilizers in April \$207. *July, 1882.* Sold hay for \$450. *August.* Milk and butter sold for \$240. *September.* Paid for labor this season \$154.75; paid for board of laborers \$100; estimated loss for wear and tear of tools, \$50; sold general produce, \$470. *October.* Sold apples for \$150. *April 1, 1883.* The value of the farm at this date, as per second inventory, is \$3,919.50.

Example 7.**103. Fairlands Farm account. Required outlay, returns, and profit.**

Expenses: viz., cash paid out for 1 man, 7 months, @ \$16 per month; for extra labor at haying, \$42.75; for stable fertilizers, \$25; for guano, \$47.50; for superphosphate of lime, \$30; for plaster, \$4.50; for taxes, \$32.40. Other expenses: viz., for boarding 1 man 7 months, \$70; repairs and wear of tools, \$50; seeds of all kinds, \$50; interest on value of the place for one year, \$240. Returns: 35 tons hay @ \$15; corn-fodder, \$20; wheat-straw, \$10; 25 bush. wheat @ \$1.50; 138 bush. corn @ \$1.10; 5 bush. beans @ \$2; 21 bush. early seed-pease @ \$8; 7 bush. marrow seed-pease @ \$6; 120 bush. carrots @ 25 cts.; 75 bbls. carrots @ \$2; beets and parsnips, \$10; 307 bush. potatoes @ 50 cts.; 20 bush. small potatoes @ 25 cts.; 35 bbls. apples @ \$2.50; pumpkins and squashes, \$15; product of dairy (milk and butter), \$240; cash received for pasturing cows, \$21; one colt-foal worth \$25; 40 lbs. cucumber-seed @ 75 cts.; 20 lbs. carrot-seed @ 75 cts.; turnip-seed, \$3; asparagus-roots, \$15; turnips, \$10; cider sold, \$9; garden-produce sold, \$97.44; for labor done off the farm, by proprietor and team, \$205.50; value of improvements (such as draining, ditching, fencing, growth of young trees, etc.), \$200.

The above is from a report made to an agricultural society. It is defective in not stating the value of products used in feeding live-stock. Had this been included, the resulting profit would be much less than the apparent amount. The only way of showing actual profits in farming operations, as well as in all others, is that in the Beechnut Farm account; viz., by taking an inventory at the *beginning* and also at the *end* of a term of business, debiting outlays, and crediting returns.

Example 8.**104. Two acres of corn. Required cost of corn per bushel, and profit on crop.**

Planted, May 27; harvested, Oct. 5. Expenses: viz., ploughing, \$12; 21 cords fertilizer @ \$6, one-half charged to this year's crop; carting and spreading same, \$19; harrowing, \$6; bushing, planting, etc., \$8; one-half bush. seed-corn, 75 cts.; first, second, and third cultivating and hoeing, \$18; cutting stalks, harvesting, and husking, \$24; interest and taxes on land, \$14.20. Yield was 135 bush. corn in the ear, of 72 lbs. each, equal to 60 lbs. shelled corn worth \$1.25 per bush.; 400 bundles stalks @ 3 cts.; husks, \$30.

Example 9.

105. One half-acre of cabbages. Required average cost per head of cabbage, and profit on the lot.

Planted, May 7. Expenses: $1\frac{1}{2}$ cords compost @ \$15; $2\frac{1}{2}$ cords muck @ \$4; carting on, \$3; ploughing and harrowing, \$2; 2 oz. seed @ 75 cts.; planting, \$4; cultivating and hoeing, \$8. Yield was 1,600 cabbages to the half-acre, 1,500 of which were sold at an average price of 13 cts. each. Remainder unmarketable.

Example 10.

106. Reclaiming meadow-land. Required cost, loss or profit returned; and annual value which it should yield to afford 6% interest on investment.

Bought, in 1865, $3\frac{1}{2}$ acres meadow covered with water, bush, and brakes, and part very rocky, for \$200. Expended on it in 1865 and 1866, for ploughing, ditching, carting on sand, etc., \$366.42; for fertilizer and carting, \$111.50; for grass-seed and sowing, \$15: in 1867, for ploughing, getting out stones, etc., \$133: in 1868, for fertilizer, \$80; for seed, \$12: in 1869, for fertilizer and labor, \$68; for ashes, \$30: in 1870, for fertilizer, etc., \$35; interest and taxes, \$85. Yield of the land has been, in 1866, potatoes and cabbages, net \$50: in 1867, for stone sold, \$21; $12\frac{1}{4}$ tons hay @ \$18: in 1868, $8\frac{1}{2}$ tons hay @ \$25: in 1869, $12\frac{1}{2}$ tons hay @ \$20: in 1870, 11 tons hay @ \$27. The whole lot is now firm, solid, and smooth, and can be mown and raked by horse-power. Its value may be computed from its production.

Example 11.

107. Planting a vineyard. Required total expenditure, returns, and profit, including land at final valuation.

Bought a lot of land in 1866 for \$67. Expended on it that year 7 cords compost @ \$12; spreading, ploughing, and harrowing, \$12.50; for 456 vines, \$114.90; for setting vines, \$13: in 1867, for cultivating and hoeing, \$6.30; for posts and setting, \$100: in 1868, for cultivating, hoeing, and training vines, \$12: in 1869, for same as last item, \$25: in 1870, same item again, \$25; interest and taxes, \$75. Yield of fruit in 1869, 1,200 lbs. grapes, value \$150; in 1870, 3,000 lbs. grapes, value \$270. Estimated cash value of the vineyard in 1870 is \$1,000.

Example 12.

108. A strawberry-plot of 32 sq. rds. Required the profit. The yield of 1,425 boxes on 32 rds. is equal to 7,125 boxes per acre, which, at price received, would afford a return of \$1,781.25 for fruit per acre.

Expended on the lot 50 bush. ashes, costing \$10; for plants, \$10; for 11 days' work setting plants and weeding, @ \$1.50 per day; for picking and packing, \$42.75; for marketing, \$10; for use of team, \$1.50; interest and taxes on land, \$6. Yield was 1,425 boxes at average price of 25 cts. each. Sold 4,000 plants @ 50 cts. per hundred.

Example 13.

109. A strawberry-plot of 45 sq. rds. Required the profit.

Expended on the lot $4\frac{1}{2}$ cords compost @ \$8; for ploughing, \$9; for plants, \$4; for 3 days' setting out, 7 days' hoeing, and 4 days' covering (equal to 14 days), @ \$2 per day; $\frac{1}{2}$ ton hay for covering, \$5; uncovering in spring, and protecting from frost, \$5; $2\frac{1}{2}$ days' weeding and 3 days' watering (equal to $5\frac{1}{2}$ days' labor), @ \$2; picking and packing 920 boxes, @ 9 cts. per box; marketing plants, \$10. Yield was 920 boxes; average price, 28 cts. Sold 4,000 plants @ 5 cts. each.

Example 14.

110. One acre of winter wheat. Required the profit.

Planted, Sept. 15. Expended for ploughing, sowing, and harrowing, \$10; for $2\frac{1}{2}$ bush. seed, \$6.25; 22 bush. ashes, \$4.50; 350 lbs. salt, \$1.75; harvesting and threshing, \$17.50. Yield was 55 bush. wheat @ \$1.25; $2\frac{1}{2}$ tons straw @ \$12; 1 ton hay, \$15.

Example 15.

111. Three-fourths of an acre of tobacco. Required the profit on crop.

Plants set, June 15; cut and hung up, Sept. 1. Expended for man and team, $3\frac{1}{2}$ days' hauling compost, ploughing, and harrowing, @ \$4 per day; for $13\frac{1}{2}$ cords compost @ \$8; for 300 lbs. superphosphate, \$9; for raising plants, setting, tending, and harvesting, 27 days @ \$2.50 per day; for stripping and hauling to market, \$20. Sold 10,000 plants @ \$1.50 per thousand; sold crop Dec. 11, as follows: viz., 1,300 lbs. wrappers @ 35 cts.; 300 lbs. fillers @ 10 cts.

Example 16.

112. One half-acre of turnips. Required the profit.

Sown, July 17; harvested, Nov. 8. Expended for fertilizers, \$12; for ploughing, harrowing, and sowing, \$2.50; for seed, 75 cts; for cultivating, \$3.75; for harvesting, \$8. Yield was 80 bush. turnips for table use, worth 40 cts., and 200 bush. for feeding to stock, worth 20 cts. per bush.

Example 17.

113. Extract from my Poultry account for 1870. Required the profit.

Average number of fowls kept, 14; number of eggs laid, 1,783; average number of eggs from each hen, 128 (nearly). During the year the number of birds in my yard averaged, fowls, 14; chickens, 20. Bought feed during the year, and used available scraps from the table; average cost of feeding each fowl for one year, about 85 cts. Stock Jan. 1, 1870, 14, of which 11 are Leghorns and 3 common. Jan. 1, 1871, stock 17, of which 15 are Leghorns and 2 common, — an increase of only three, but an entire change from ordinary fowls to a fine variety. From 107 eggs set I got 51 chickens. Of these, but 10 were left on Jan. 1, 1871. Expended for fowls, \$13.50; feed, \$29.09; fixtures, \$8.51. Returns: viz., received for fowls, \$14.58; for eggs, \$3.17; 1,638 eggs used, worth 30 cts. per doz.; estimated increase in value of flock, \$15.

Example 18.**114. One acre of cabbages. Required the profit.**

Planted, June 12. Expended for compost and spreading, \$90; ploughing, harrowing, and planting, \$15; for seed, \$3; thinning out, and applying compost, \$10; hoeing and cultivating thrice, \$25; transplanting, \$3; interest and tax on land, \$16. Yield, 5,976 heads cabbage worth 11 cts. each, and 1,584 heads worth 6 cts. each.

Example 19.**115. Two-thirds acre of beets. Required the profit.**

Expended three-quarters value of fertilizer for this year's crop, \$75; for ploughing, \$6; for seed, \$2.25; cultivating, \$16; harvesting, \$36. Yield was 41 tons beets @ \$10.

Example 20.**116. Dairy account. Required the profit on the business.**

I begin June 1 with 7 cows, and during June feed them to pasture and 16 quarts corn-meal daily; during July, I give them 10 quarts corn-meal daily and pasturage; during August, I give them 20 quarts of corn-meal daily and pasturage. The quantities of meal are the total per day for all the animals, and may be reckoned at \$1.25 per bush.; the pasturage may be called 2 cts. per day per head. Each cow gave milk averaging as follows: during June, 871 lbs.; during July, 832 lbs.; during August, 778 lbs.; the figures being the total for each cow for each month. I call a quart of milk 2 lbs., and reckon it at 6 cts. a quart.

Example 21.**117. One acre of Early Rose potatoes. Required the profit.**

Planted, May 14. Outlay: 8 bush. seed @ \$1.25; fertilizers removed by crop,* \$12; carting and spreading, \$5; ploughing 1 day, 1 man and 2 horses, \$5; harrowing with same half-day, \$2.50; planting, \$3; cultivating, 5 days with man, and 1 day with horse, \$11.50; harvesting, \$16; interest and taxes, \$16; cost of marketing, \$15. Aug. 1, yield was 150 bush. potatoes, sold @ \$1.25 per bush.

Example 22.**118. One acre of Swedes turnips. Required the profit.**

Sown, June 20. Outlay: seed, \$1; value of fertilizers removed by crop,† \$22.50; carting and spreading compost, \$5.50; ploughing 1 day, 2 men and 3 horses, \$8.50; harrowing 1 day, 1 man and 2 horses, \$5; preparing ground, and planting, \$5; cultivating, \$15; harvesting, \$6; interest and taxes, \$16; cost of marketing, \$10. Yield was 195 cwt., sold for 75 cts. per cwt., and 70 cwt., fed to stock, worth 50 cts. per cwt.

* 150 bush. potatoes, equal to 9,000 lbs., contain 28 lbs. nitrogen @ 25 cts., 50 lbs. potash @ 5 cts., 16.2 lbs. phosphoric acid @ 15 cts. Total, \$12, value of elements taken from the soil by the crop.

† 14 tons Swedes contain 64 lbs. nitrogen @ 25 cts., 90 lbs. potash @ 5 cts., 30 lbs. phosphoric acid @ 15 cts. Total, \$22.50, value of fertilizers removed by crop.

Example 23.

119. One acre of beets. Required the profit.

Outlay: for seed, \$1; fertilizer removed by crop,* \$40; carting and spreading compost, \$6; ploughing 1 day, 1 man and 2 horses, \$5; harrowing with same 1 half-day, \$2.50; preparing ground, and planting, \$2; cultivating, \$15; harvesting, \$6; interest and taxes, \$16; cost of marketing, \$15. Yield was 25 tons beets, worth \$16 per ton.

Example 24.

120. One half-acre of onions. Required the profit.

Sown, May 13. Outlay: 15 loads compost @ \$2.50; 300 lbs. superphosphate @ 3 cts.; ploughing and harrowing, \$5; raking, \$2; seed and sowing, \$1.50; hoeing and weeding, \$25; pulling and topping, \$18; carting to barn, \$8; cost of barrels, \$35; cost of barrelling, \$6; carting to station, \$6; interest and taxes on land, \$10. The crop was 423 bush. to the half-acre, equal to 147 bbls., and sold for \$3.50 per bbl.

Example 25.

121. A flock of Southdown sheep. Required the profit.

Outlay: bought 50 sheep @ \$6 each; cost of keeping 1 year is estimated at \$4.60 each; cost of extra care in the spring, and shearing, \$25; interest 1 year, 6% on original cost. Return: 250 lbs. washed wool @ 45 cts.; 50 lambs, weighing an average of 55 lbs. each, worth 10 cts. per lb., live weight. Value of 50 old sheep at end of year, \$5.50 each.

Example 26.

122. Estimate of the value and annual yield of one acre in grass. Required the percentage of profit on investment.

Value of land, \$200. Outlay: interest @ 6%; taxes, \$2; fences, \$5; fertilizer, \$25; cost of harvesting, \$20. Return: 4 tons hay @ \$25.

Example 27.

123. Estimate for making 12-oz. woollen coating. Required the profit or loss.

We will assume that wool is bought at 40 cts. per lb. It must be sorted into its grades. This lot sorts as follows: viz., 100 lbs., costing \$40, equals 40 lbs. super @ 45 cts., 40 lbs. extra @ 42 cts., 10 lbs. prime @ 37 cts., 5 lbs. No. 1 @ 32 cts., 3 lbs. No. 2 @ 30 cts., and 2 lbs. dirt worth nothing; leaving, say, 98 lbs. costing, sorted, \$41. There is a loss of 50% in cleaning, making each sort cost double the above prices. Bought 50,000 lbs. wool @ 40 cts. Sorted it after the scale at a cost of 85 cts. per 100 lbs. Manufactured the super, extra, and prime according to the schedule. Sold the No. 1 @ 35 cts., and the No. 2 @ 32 cts., per lb., uncleaned. The cloth from super wool sold for \$2.15, from the extra @ \$2, and from the prime @ \$1.80, per yd.

* 25 tons beets contain 90 lbs. nitrogen @ 25 cts., 215 lbs. potash at 5 cts., 40.5 lbs. phosphoric acid @ 15 cts., equal to \$39.33, total value of fertilizers removed by crop.

EXAMPLES FOR PRACTICE.

Taking 100 lbs. super, costing,		@ .90	\$90.00
Scouring, indigo coloring, and drying,	100 lbs.	.17	\$17.00
Picking,	100 lbs., loss 2%,	98 "	.008 .59
Carding,	98 " loss 10%,	88 "	.03 2.64
Spinning,	88 " loss 3%,	85 "	.04 3.40
Spooling and dressing,		128 yds.	.02 2.56
Weaving,	128 yds., loss 6%,	120 "	.10 12.
Scouring,		120 "	.01 1.20
Burling,		120 "	.01 1.20
Fulling,	120 yds., loss 20%,	96 "	.01 .96
Gigging,		96 "	.03 2.88
Drying,		96 "	.01 .96
Shearing,		96 "	.02 1.92
Finishing,		96 "	.015 1.44
Packing,		96 "	.01 .96 49.71
Total cost of 96 yards for stock and manufacturing processes,			<u>\$139.71</u>
Average cost per yard,	\$1.45		
" general mill expenses per yard,	.30	\$1.75	
" " selling expenses, 8%,	.14	\$1.89,*	{ net cost, sold in market, per yd.

Example 28.

124. Estimate for making cotton yarn. Required the product and cost after deducting waste, and the net profit or loss. Bought 100,000 lbs. cotton @ $11\frac{1}{2}$ cts. per lb. Sold the product in yarn at 25 cts. per lb.

100 lbs. cotton @ 12 cts., allowing 10% waste,	costs, net,	\$13.333
Carding,	per 100 lbs.	2.039
Mule and ring spinning,	" 100 "	1.402
Twisting and reeling,	" 100 "	.969
Spooling and beaming,	" 100 "	.461
Repairs,	" 100 "	1.
Expenses, supplies, oil, gas, steam and power, water- rent, taxes, insurance, interest,	" 100 "	3.650
Total cost of 100 lbs. yarn,		<u>\$22.854</u>

Example 29.

125. The product of a dressed hog, weighing 250 lbs., is estimated as in the following schedule. The proportion of product differs according to the manner of cutting and weight of the animal. Cost of cutting is 25 cts. each hog; cost of curing and smoking hams and shoulders is 15 cts. each,—shrinkage of weight in process, 8%; cost of rendering lard, 50 cts. per 100 lbs. net weight,—loss of weight, 15% on leaf, 25% on trimmings; cost of barrelling,—barrel \$1.25. salt 25 cts., labor and pickle $12\frac{1}{2}$ cts. 190 lbs. of meat weighed into the barrel will

* This cost assumes that there is a loss of about 25% in shrinkage of stock in process of manufacturing, so that 100 lbs. of clean wool produces 96 yds. of 12-oz. goods. The cost of each process is arrived at by comparing total cost of materials, wages, etc., in each department, with the total quantity of product.

take up salt enough to weigh out 200 lbs. Sides only are barrelled. Bought 500 dressed hogs, averaging 250 lbs. each, @ 10 cts. per lb. Required the profit or loss at following market prices: viz., cured and smoked hams, 12 cts.; smoked shoulders, $9\frac{1}{2}$ cts.; fresh leaf lard, $12\frac{1}{4}$ cts.; lard rendered from trimmings, including head, 10 cts.; fresh spareribs, 11 cts.; mess pork (barrelled sides), \$22 per bbl.; feet sold @ 1 ct. each.

2 green hams,	30 lbs., worth .08 per lb.	\$2.40
2 " shoulders,	25 " " .08 "	1.50
1 head,	15 " " .03 $\frac{1}{2}$ "	.52
4 feet,	5 " " .01 "	.05
Fresh spareribs,	45 " " .09 "	4.05
Leaf lard,	23 " " .11 "	2.53
Trimnings,	5 " " .07 "	.35
2 green sides,	100 " " .08 "	8.
Shrinkage, .008%, or $\frac{1}{10}$ of 1%,	2 " " .00 "	.00
	250 lbs.	<u>\$19.40</u>

Example 30.

126. Estimate for establishing a prairie farm at the West. Required total permanent investment; difference between current expenses and returns for first year; same for second year; percentage of returns on capital invested, for each year, in grain-farming.

Permanent Expenditure for First Year. — 160 acres land @ \$5: house with 2 ground-floor rooms and 2 attics, complete, \$300: for stable, fencing yards, and digging well, \$150: farm-implements, — 2 breaking-ploughs, \$35; 2 stirring-ploughs, \$25; 2 corn-cultivators, \$60; 2 harrows, \$20; 2 wagons and harnesses, \$200; mower and reaper, \$100: other implements, \$85: stove, and furniture for house, \$100: six good farm-horses, \$600.

Current Expenditure for First Year. — Seed for 40 acres put in flax, \$60; seed for 20 acres in corn, \$2.50; labor and expense for sowing and reaping 60 acres, \$100; taxes on 160 acres, \$18.

Returns for First Year. — 40 acres flax (7 bush. to the acre) @ \$1 per bush.; 20 acres corn (35 bush. to the acre) @ 18 cts. per bush.

Current Expenditure for Second Year. — Seed-wheat for 100 acres (174 bush.) @ 85 cts. per bush.; seed for 20 acres corn, \$2.50; seed-oats for 20 acres (50 bush.) @ 25 cts. per bush.; labor, \$175; taxes, \$18; harvesting and threshing expenses, \$170.

Returns for Second Year. — 100 acres wheat yield 17 bush. per acre, @ 85 cts. per bush.; 20 acres corn yield 60 bush. per acre, @ 20 cts. per bush.; 20 acres oats yield 40 bush. per acre, @ 25 cts. per bush.

Example 31.

127. Estimate for cattle raising and grazing. Required expenses for each year, and net profit at close.

First Year. — Bought in the spring 50 head @ \$18.75; 1 head, \$105.

Current Expenses First Year. — Feed of 51 head @ \$4 per head; feed of 40 calves @ \$2.37 per head.

Current Expenses Second Year. — Feed of 51 head @ \$4 per head; feed of 40 yearlings @ \$4 per head; feed of 40 calves @ \$2.37 per head.

Current Expenses Third Year. — Feed of 71 head @ \$4 per head; feed of 20 2-yr.-old steers @ \$10.50 per head, fattened on grain; feed of 40 yearlings @ \$4 per head; feed of 70 calves @ \$2.37 per head.

Value of Stock at Beginning of Fourth Year. — 70 cows @ \$26; 20 3-yr.-old steers @ \$62.50; 20 2-yr.-old steers @ \$22.50; 20 heifers @ \$18.75; 70 yearlings @ \$12.50; 70 calves @ \$2.50; 1 head, \$75.

Example 32.

128. Estimate for sheep-farming. Required comparative statement of expenses and returns for each year, and final result.

September, First Year. — Bought 500 ewes @ \$4.25; 15 head @ \$20. Cost of common prairie sheds for 1,000 sheep, \$225; grain and feed for the winter, \$300; herding and attendance per annum, \$250; salt and medicine, etc., \$50.

September, Second Year. — Cost of grain and feed for the winter, \$500; herding and attendance, \$250; salt, medicine, etc., \$50.

September, Third Year. — Cost of grain and feed for the winter, \$700; herding and attendance, \$250; salt, medicine, etc., \$50.

September, Fourth Year. — Expenses same as third year.

Returns in spring of each year: viz., —

May, Second Year. — Clipped 515 sheep, yielding 3,350 lbs. wool @ 20 cts. per lb.

May, Third Year. — Clipped 1,030 sheep, yielding 6,700 lbs. wool @ 20 cts. per lb.

March, Fourth Year. — Sold 515 fat sheep @ \$8 per head.

May, Fourth Year. — Clipped 1,030 sheep, yielding 6,700 lbs. wool @ 20 cts. per lb.

March, Fifth Year. — Sold 515 fat sheep @ \$8 per head.

May, Fifth Year. — Clipped 1,030 sheep yielding 6,700 lbs. wool @ 20 cts. per lb.

Stock on hand in May of Fifth Year, as follows: 500 ewes with lambs @ \$4; 15 head @ \$20; 515 yearlings @ \$1.75.

Example 33.

129. Swine-raising estimate. Required total outlay, returns, and net profit.

Spring of First Year. — Bought 50 hogs averaging 95 lbs. each, and 25 young pigs averaging 80 lbs. each, at 3 cts. per lb.

First Year. — Cost of feeding, with grain and milk from cows, \$100.

Second Year. — Feeding of same, with increase of 200 pigs, \$183.

Third Year. — Fattening 75 hogs on grain, and feed of 350 pigs, \$235.

Fall of Third Year. — Value of stock on hand: viz., 75 old fat hogs (average 300 lbs. each) @ 4 cts. per lb.; 350 pigs (say 70 lbs. each) @ 3 cts. per lb.

CHAPTER XIII.

SECTION 1. — The System of Double Entry.

130. It is a self-evident truth, that any sound argument or theory must necessarily be based upon a fact. The starting-point of the double-entry system is the fact that one and the same transaction may sometimes belong upon the opposite sides, respectively, of two relative Accounts Current in the literal and actual sense of indebtedness. To illustrate this, let us suppose that two persons are buying of and selling to each other, and settling their transactions through a third person, as their banker, with whom each keeps an account. The buyer, Alger, pays for his goods by giving to Harding, the seller, his own order upon the banker, as follows: viz., —

SAMUEL ALGER.	\$1200.—	BOSTON, Nov. 15th, 1882.
	THOMAS HUTCHINSON, BANKER,	
	542 Devonshire Street.	
	PAY TO THE ORDER OF <u>John Harding</u>	
	<u>twelve hundred</u> 100 DOLLARS.	
	No. 12	<u>Samuel Alger</u>

And Harding, instead of drawing the money for the check, deposits it with the same banker to his own credit. The banker, who keeps both Alger's account and Harding's account, would naturally make an entry equivalent to the following, for the purpose of transferring the sum from the one to the other account on his books: —

<i>Dr.</i>	<i>Samuel Alger.</i>	<i>to</i>	<i>John Harding.</i>	<i>Cr.</i>
1,200.00	Received Samuel Alger's check, No. 12, in favor of John Harding,			1,200.00

That is, he debits or charges the sum to signer of the order, and credits it to the depositor. Again: we will suppose that Alger also receives Harding's check on the same banker, and that it is treated in the same manner; and these transactions continue until, as we assume, the two accounts stand as follows: —

<i>Dr.</i>	<i>Samuel Alger.</i>	<i>Cr.</i>	<i>Dr.</i>	<i>John Harding.</i>	<i>Cr.</i>
1,200.00		1,000.00	1,000.00		1,200.00
800.		700.	700.		800.
500.					500.
<u>2,500.00</u>		<u>1,700.00</u>	<u>1,700.00</u>		<u>2,500.00</u>

It is plain that the opposite sides, respectively, of the two accounts, are equal sums, and that this results from the reversal of the sides. Their balances prove each other, as follows: viz., —

<i>Dr.</i>				<i>Cr.</i>
800.00	due to the banker,	SAMUEL ALGER.		
		JOHN HARDING,	due from the banker,	800.00

The one account shows a debit balance, and the other a credit balance, each of \$800; or, in other words, Alger owes the banker \$800, and the banker owes Harding \$800: thus the two accounts show the sums due to and from each, and also verify each other.

131. All classes of account in the double-entry system bear the same relation to each other by analogy as the two Accounts Current do to each other in the sense of indebtedness. Analogy is defined to be “an agreement or likeness in some circumstances or effects, when the things are otherwise entirely different.” Each class has its own distinct and different form, while all are analogous to each other. Any sum placed upon the one side of one account must also be placed upon the opposite side of some relative account or accounts: or, in other words, every debit must have an equal credit, and every credit an equal debit. The plan includes all classes of both Ordinary and Subordinate accounts, summarized as follows: —

<i>Debits.</i>	<i>Ordinary Accounts.</i>	<i>Credits.</i>
1. Delivered to others, and due to us. {	ACCOUNTS CURRENT. {	2. Received from others, and due to them.
3. Money received.	CASH.	4. Money paid out.
5. Others' notes received.	NOTES RECEIVABLE.	6. Others' notes disposed of.
7. Our own notes redeemed.	NOTES PAYABLE.	8. Our own notes issued.
9. Of all other property as per inventory. {	VALUATION. {	10. Transfer to Outlay and Return head.
<i>Subordinate Accounts.</i>		
11. Purchase, expenditure, or loss.	OUTLAY AND RETURN.	12. Sales, returns, or profits.
13. Capital withdrawn.	STOCK.	14. Capital invested.

SECTION 2. — Journalizing.

132. Every business transaction involves a fact: and the form of its record is determined by reasoning from the fact, together with the forms of the accounts in question; that is, the fact and the form must coincide with each other. Any form of stating a transaction, to be clear, must name the accounts concerned, and what is done with them. To say, "I have bought five hundred dollars' worth of merchandise," is indefinite, and insufficient for record; for merchandise may be bought in many ways, and upon many accounts. But if we say, "I have bought five hundred dollars' worth of merchandise and paid cash for it," the statement is complete; and its debit and credit elements may be set down upon their respective sides, as follows:—

<i>Debit.</i>		<i>Credit.</i>	
	CASH.	Money paid out,	500.00
500.00	Purchase or outlay.	MERCHANDISE.	

This separation of a transaction into its debit and credit parts is called "journalizing;" and, having learned the forms and purposes of the several classes of account, the student should decide, in his own mind, what accounts a transaction affects, and state it upon their opposite sides, respectively, by clear and logical reasoning from the fact, taken together with the forms concerned. A transaction may involve more than two accounts. Take, for example, the following: we buy merchandise, \$1,000, and pay for it with our own note for \$200, another person's note for \$200, and money, \$600. When stated, the forms stand as follows:—

<i>Debit.</i>		<i>Credit.</i>	
	CASH.	Money paid out,	600.00
	NOTES RECEIVABLE.	Another's note sold,	200
	NOTES PAYABLE.	Our note issued,	200
1,000.00	Purchase of,	MERCHANDISE	
<u>1,000.00</u>			<u>1,000.00</u>

133. Let us take another transaction; viz., we sell merchandise for \$2,000, and receive in payment for it another person's note for \$1,000, our own note for \$1,500. We are entitled to \$20 discount on the notes for unexpired time, and we pay the difference in cash, \$480. We state it by the forms as follows:—

<i>Debit.</i>		<i>Credit.</i>	
	CASH.	Money paid out,	480.00
1,000.00	Another's note received.	NOTES RECEIVABLE.	
1,500.	Own note redeemed.	NOTES PAYABLE.	
	MERCHANDISE.	Sold, or returns,	2,000.
	INTEREST.	Gains, or returns,	20.
<u>2,500.00</u>			<u>2,500.00</u>

These examples are perhaps sufficient to show the manner of separating transactions into their debit and credit elements. It will be seen that each statement affords a proof of itself by noting whether the sides are equal, and whether the facts and the forms correspond.

134. EXAMPLE FOR PRACTICE IN JOURNALIZING.

No. 1. Cash on hand at beginning, being my net capital, \$7,000. No. 2. Bought mdse. of John A. Andrews, on account, for \$5,600. No. 3. Sold mdse. to W. L. Hooper for \$2,750, on account. No. 4. Paid cash for expenses, \$50. No. 5. Received cash from W. L. Hooper, on account, \$750. No. 6. Received Hooper's note to balance his account for \$2,000. No. 7. Gave Andrews my note, on account, for \$5,000. No. 8. Debited Andrews's account with discount on it, \$50. No. 9. Paid Andrews cash, on account, \$450. No. 10. Lent Walter L. Harris, on his demand note, \$100 cash. No. 11. Value of mdse. on hand is \$2,500.

Each of these numbers should be stated separately after the manner explained, and then posted to a miniature ledger in the form of the synopsis farther on.

SECTION 3. — A Survey of the Ledger.

135. In order to overlook the entire field of the double-entry ledger, let us assume that the student proposes to keep his books by that method, and does an entirely cash business, involving the following transactions. The first fact in business is the investment of a definite sum as capital, and we begin with \$1,000 cash. Two accounts are affected, and we state them according to the principles of the schedule of accounts.

<i>Debit.</i>		<i>Credit.</i>	
1,000.00	Original balance on hand.	CASH.	
		STOCK.	Capital invested, 1,000.00

The second fact is the purchase of the property dealt in; and we buy 10 pianos @ \$100 each, for cash, stating it thus: —

1,000.00	Outlay for 10 @ \$100 each.	CASH.	Money paid out, 1,000.00
		PIANOS.	

The third fact is the sale of the property dealt in; and we sell the same 10 pianos @ \$150 each, for cash, stated as below: —

1,500.00	Money received for 10 pianos.	CASH.	
		PIANOS.	10 sold @ \$150 each, 1,500.00

Our goods being all sold, and payment being received, we have nothing but money on hand, and have made a profit of \$50 each on 10 pianos, or \$500 in addition

to our original capital. Dividing our ledger into two parts, and placing the Ordinary and Subordinate accounts side by side, so as to show them at a glance, we post the foregoing details, and get the following tabulation of them : —

<i>Dr. Ordinary Accounts.</i>			<i>Cr.</i>	<i>Dr. Subordinate Accounts.</i>			<i>Cr.</i>
CASH.				PIANOS.			
1,000.00	Began with.	By 10 pianos,	1,000.00	1,000.00	10 bought.	10 sold,	1,500.00
1,500.	Received for 10 pianos.						
						STOCK.	
						Original capital,	1,000.
<u>2,500.00</u>			<u>1,000.00</u>	<u>1,000.00</u>			<u>2,500.00</u>

The balances of these accounts prove each other, as follows : —

1,500.00	Debit balance on hand.	CASH.			
		PIANOS.	Credit balance, profit,	500.00	
		STOCK.	Original capital,	1,000.	
<u>1,500.00</u>	Present capital.		Present capital,	<u>1,500.00</u>	

136. Again let us suppose that we begin with \$1,000 cash capital, and transact the following business: we buy 10 organs @ \$100 each for cash, and sell 5 organs @ \$150 each for cash. Here are three separate items of business to be stated in detail, as in the piano example; and, combining them in one tabulation, we get the following exhibit of our ledger : —

<i>Dr. Ordinary Accounts.</i>			<i>Cr.</i>	<i>Dr. Subordinate Accounts.</i>			<i>Cr.</i>
CASH.				ORGANS.			
1,000.00	Began with.	By 10 organs,	1,000.00	1,000.00	10 bought.	5 sold,	750.00
750.	Received for 5 organs.						
						STOCK.	
						Original capital,	1,000.
<u>1,750.00</u>			<u>1,000.00</u>	<u>1,000.00</u>			<u>1,750.00</u>

And the accounts prove each other, as follows : —

1,750.00	Money received.	CASH.	Money paid out,	1,000.00	
1,000.	Outlay, 10 bought.	ORGANS.	Returns, 5 sold,	750.	
		STOCK.	Original capital,	1,000.	
<u>2,750.00</u>				<u>2,750.00</u>	

This exhibit is correct as far as it goes; but it does not tell the whole story. for we sold 5 organs @ \$150 each, or for a total profit of \$250, and have 5 organs

costing \$500 still on hand. To show our exact condition under these circumstances, it is necessary to place the *valuation* of the organs unsold upon the ledger. Noting what classes of account are concerned in this transaction, we state it as follows : —

<i>Debit.</i>		<i>Credit.</i>	
500.00	Of 5 organs on hand.	VALUATION. ORGANS.	Value of 5 left, at cost, 500.00

Placing this in the ledger, we get an exhibit of our actual condition, as follows : —

<i>Dr. Ordinary Accounts.</i>		<i>Cr.</i>	<i>Dr. Subordinate Accounts.</i>		<i>Cr.</i>
CASH.			ORGANS.		
1,000.00	Began with. By 10 organs,	1,000.00	1,000.00	Bought 10.	Sold 5, 750.00
750.	Received for 5 organs.				Value of 5 unsold, 500.
VALUATION.			STOCK.		
500.	Of 5 organs on hand.			Original capital,	1,000.
<u>2,250.00</u>		<u>1,000.00</u>	<u>1,000.00</u>		<u>2,250.00</u>
From debits, increase,	2,250.00	From credits, increase,	2,250.00		
Subtract credits, decrease,	1,000.	Subtract debits, decrease,	1,000.		
Leaves debit balance, present capital,	<u>1,250.00</u>	Leaves credit balance, present capital,	<u>1,250.00</u>		

The balances of these accounts prove each other, thus : —

750.00	Balance on hand.	CASH.	
500.	Of 5 organs, at cost.	VALUATION.	
		ORGANS.	Credit balance, profit, 250.00
		STOCK.	Original capital, 1,000.
<u>1,250.00</u>	Present capital.		<u>Present capital, 1,250.00</u>

137. The opposite sides, respectively, of the Ordinary and Subordinate accounts, show the same result, and prove each other. When there are cross-entries on the Ordinary accounts, made in settlements, each side of them will be equally increased : but the balance is always the same as that of the Subordinate accounts. The *quantity* of property dealt in is not the subject of comparison. The *value* paid for merchandise is compared with the *value* returned for merchandise in a cash business, and the subject of comparison remains the same when the element of trust comes into it. The Ordinary accounts, including the Valuation account, afford a counting-up of actual property in possession, showing the present capital as a debit balance ; while the Subordinate accounts show the original capital, and, with the valuation, a statement of gain or loss, verifying the present capital as a credit balance.

138. Let us suppose a series of transactions in double-entry required to embody the element of trust, stating them on the left and right hand sides of the page as debits and credits respectively.

1. We begin a term of business with the following assets: viz., —

<i>Debits.</i>			<i>Credits.</i>
6,200.00	Accounts receivable, due us.	}	
4,000.	Cash on hand.		
1,500.	Notes receivable on hand.		
1,000.	Value of merchandise on hand.		
			Stock, total capital invested, 12,700.00

2. We owe the following debts: viz., —

2,700.00	Stock, capital withdrawn.	}	Accounts payable, due to others, 1,000.00
			Notes payable, balance outstanding, 1,700.

We have thus invested the net sum of \$10,000, and we proceed to do a general business, as follows: —

3. We buy merchandise worth \$8,000 from an Account payable.

8,000.00	Merchandise, purchase or outlay.	Accounts payable, rec'd from them,	8,000.00
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4. We sell merchandise worth \$9,200 to an Account receivable.

9,200.00	Accts. receivable, delivered to them.	Merchandise, sales or returns,	9,200.00
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5. We receive \$6,700 in cash, from Accounts receivable.

6,700.00	Cash, money received.	Accounts receivable, rec'd from them,	6,700.00
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6. We receive \$1,200 in other persons' notes, upon Accounts receivable.

1,200.00	Notes rec., other persons' notes rec'd.	Accounts receivable, had from them,	1,200.00
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7. We receive \$900 cash, in payment of other persons' notes.

900.00	Cash, money received.	Notes rec., others' notes disposed of,	900.00
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8. We issue our own notes for \$1,300, upon Accounts payable.

1,300.00	Accounts payable, delivered to them.	Notes payable, own notes issued,	1,300.00
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9. We pay our own notes in cash, amounting to \$2,500.

2,500.00	Notes payable, own notes redeemed.	Cash, money paid out,	2,500.00
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10. We pay out \$400 cash, for current expense.

400.00	Expense, outlay or loss.	Cash, money paid out,	400.00
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11. We pay \$4,700 cash, upon Accounts payable.
 4,700.00 Accounts payable, delivered to them. Cash, money paid out, 4,700.00
12. We receive \$1,147 cash, for sundry interest items.
 1,147.00 Cash, money received. Interest, returns or gains, 1,147.00
13. And we find the value of merchandise on hand at close of term is \$300.
 300.00 Valuation of merchandise. Merchandise, returns or gains, 300.00

Tabulating this business, our ledger exhibits it in one view, as follows : —

SECTION 4. — Synopsis of the Double-Entry Ledger.

<i>Dr.</i>	<i>Ordinary Accounts.</i>	<i>Cr.</i>	<i>Dr.</i>	<i>Subordinate Accounts.</i>	<i>Cr.</i>
ACCOUNTS RECEIVABLE.			MERCHANDISE.		
6,200.00	Owed to us. Received from	6,700.00	1,000.00	First invty. Sold,	9,200.00
9,200.	Divd. them. them,	1,200.	8,000.	Bought. Second invty.,	300.
ACCOUNTS PAYABLE.			INTEREST.		
1,300.	Divd. them. Owed them,	1,000.		Gains,	1,147.
4,700.	" " Rec. from them,	8,000.	EXPENSE.		
CASH.			400.	Loss.	
4,000.	Original bal. Payments,	2,500.	STOCK.		
6,700.	Receipts. " "	400.	Original capital, 10,000.		
900.	" " "	4,700.			
1,147.	" " "				
NOTES RECEIVABLE.					
1,500.	Original bal. Disposed of,	900.	9,400.00		20,647.00
1,200.	Received.				
NOTES PAYABLE.					
2,500.	Redeemed. Outstanding,	1,700.		From credits, increase,	20,647.00
	Issued,	1,300.		Subtract debits, decrease,	9,400.
VALUATION.				Credit balance, present capital,	11,247.00
1,000.	First invty. Trans. to mdse.,	1,000.			
300.	Second " "				
40,647.00		29,400.00			
				PROOF.	
From debits, increase,		40,647.00	40,647.00	Ordinary Accounts.	29,400.00
Subtract credits, decrease,		29,400.	9,400.	Subordinate Accounts.	20,647.
Debit balance, present capital,		11,247.00	50,047.00		50,047.00

139. Taking the balance of each account, we get the following financial exhibit of the business at its close :—

<i>Dr.</i>		<i>Ordinary Accounts.</i>		<i>Cr.</i>
RESOURCES.			LIABILITIES.	
Accounts receivable due to us,	7,500.00	Accounts payable owed to others,	3,000.00	
Cash on hand,	5,147.	Notes payable outstanding,	500.	
Notes receivable on hand,	1,800.	Total debts,	3,500.00	
Valuation of merchandise at close,	300.	Debit balance, present capital,	11,247.	
Total assets,	14,747.00		14,747.00	
		<i>Subordinate Accounts.</i>		
Expense, loss,	400.00	Merchandise, balance profit,	500.00	
Credit balance, present capital,	11,247.	Interest, " "	1,147.	
		Stock, original capital,	10,000.	
	11,647.00		11,647.00	

It is evident from this comparison that the Ordinary accounts, including the estimated valuation of property on hand, present a statement of assets and debts. The Subordinate accounts, together with the same estimated valuation of property, afford a statement of outlay and return, net loss or gain, and original capital, and verify the Ordinary accounts by showing the same remainder, or present capital.

SECTION 5. — Examples.

140. The examples of double-entry transactions may be solved by ruling a sheet of paper in the form of the synopsis of ledger, placing the inferior heads underneath in the respective sides where they belong, and each transaction separately on the debit side of one, and on the credit side of another of these heads. The student must use his own judgment, and decide in what classes of account a transaction should be stated from his knowledge of the elements of accounts.

Example 1.

A merchant begins the year with assets as follows, — viz., due from customers, \$10,000; cash on hand, \$5,000; notes receivable, \$8,000; merchandise on hand valued at \$12,000, — and with liabilities as follows: viz., due to creditors, \$3,000; notes payable (unredeemed), \$4,000. He transacts the following business: sells merchandise to customers, on account, \$5,000, and for cash, \$3,000; buys merchandise from creditors, on account, \$7,000; receives cash from customers, on account, \$4,000; receives cash for notes receivable, \$3,000; pays cash for own notes, \$2,500; issues own notes to creditors, on account, \$4,000; pays cash to

creditors, on account, \$2,000, and for expenses, \$201.19; charges customers' accounts with \$86.50 for interest; credits interest, on creditors' accounts, \$41.90. On taking "account of stock" at close of a term of business, he finds he has merchandise on hand valued at \$12,657.14.

Required total assets, total liabilities, and net capital; also profit or loss, which, together with original capital, should equal present capital; and also a balance-sheet of the business, — all in form of ledger synopsis.

NOTE. — The Accounts Current with customers to whom we sell, and creditors from whom we buy, should be stated under two separate heads in this example. "Buyers" and "sellers" would be convenient expressions, or any terms or personal names which may not be confounded, in their relation to the business, in the mind of the student.

Example 2.

A real-estate dealer begins a business term with assets as follows, — viz., cash on hand, \$12,000; notes receivable on hand, \$20,000; value of real estate, \$40,000, — and the following liabilities: viz., notes payable, \$10,000. He transacts the following business, viz., he sells real estate for \$10,000 cash, and \$10,000 notes receivable; another lot for \$5,000 cash, and \$10,000 notes receivable: he receives cash \$5,000 for notes receivable, and \$300 for interest: he buys real estate for \$10,000 cash, and for \$10,000 notes payable: he sells real estate for \$15,000 cash, and for \$5,000 notes receivable: he pays \$20,000 cash for notes payable, and also \$1,547.90 cash, for improvement of real estate; for interest, \$1,275; for expenses, \$1,154.37; for taxes, \$350. At close of business the value of real estate unsold is \$20,000.

Required amount of original and present capital, profit or loss, and balance-sheet, — all to be stated in form of ledger synopsis.

Example 3.

A town agent upon appointment receives liquors valued @ \$1,247.60, and money \$764.51. His total sales are \$2,263.49, and total purchases are \$1,549.74. He draws a salary of \$300 from the cash fund, and turns over to his successor, at expiration of term, liquors valued at cost, @ \$754.63. The sales and purchases are all for cash.

Required a statement in form of ledger synopsis, showing loss or gain, and amount due the town.

Example 4.

An agent receives at beginning a stock valued at \$900, and cash, \$500. His purchases amount to \$2,041.59, and sales \$2,546.54. He is allowed a commission of 5% on his sales. His stock, at end of term, is \$764.37 in goods.

Required the profit or loss, and amount due to or from the employer. Transactions are all for cash, to be stated in form of ledger synopsis.

Example 5.

A speculator buys 20,000 bushels of wheat @ \$1.09 per bush., and deposits cash, \$1,000, as a margin with the broker. Wheat declines to \$1.05, and he deposits cash, \$1,000 more. It declines again to \$1.01½; at which price he sells out, and settles with the broker, who receives ¼ ct. per bush. brokerage.

Required a statement in form of the ledger synopsis; and also another, assuming that he sells out at \$1.12 per bush., as was at first anticipated.

CHAPTER XIV.

SECTION 1. — **Forms of Original Entries.**

141. To record business transactions systematically, it is essential that they be so stated as to be conveniently posted or transferred to the proper accounts in the ledger. If entries are made separately in chronological order in the foregoing forms, the clerk's labor will be doubled, for he will have to post each side of each entry separately to its ledger account. It was formerly customary to journalize or restate each item, but merchants now arrange their books of original entry so as to dispense with this needless labor. The items of Accounts Current and the Note accounts only, require to be separately posted to their proper accounts; and the original books may be so arranged as to give totals for the other classes. Journal forms are of the four following varieties: viz., —

1. One Debit	equal to	Several Credits.
2. Several Debits	equal to	One Credit.
3. One Debit	equal to	One Credit.
4. Several Debits	equal to	Several Credits.

The principal forms in a merchandise business would be equivalent to those given in detail in section 2. The books of original entry are themselves journal forms, being modifications of these entries suited to the requirements of business, as explained under their names. It should be noticed that the word "sundries" is technically used in book-keeping to indicate several accounts; thus, when we say "Sundries Dr. to Merchandise," we mean that several accounts, as enumerated, are debtor for merchandise.

SECTION 2. — Journal Forms.

<i>Dr.</i>			<i>Cr.</i>
		<i>No. 1.</i>	
119	49	SUNDRIES to MERCHANDISE,	1,000 00
880	51	William Stearns & Co., for goods sold them.	
		Edward H. Faxon, for goods sold him.	
		<i>No. 2.</i>	
4,000		MERCHANDISE to SUNDRIES.	
		For goods bought of them,	2,651 82
		" " " " him,	1,348 18
		<i>No. 3.</i>	
2,000		CASH to SUNDRIES.	
		For money received from them,	1,314 92
		" " " " " "	685 08
		<i>No. 4.</i>	
2,142	21	SUNDRIES to CASH,	3,000
837	79	Francis G. Davis, for money paid him.	
		Thomas Dana & Co., for money paid them.	
		<i>No. 5.</i>	
500		HIRAM S. SMITH to NOTES PAYABLE,	500
		For my note issued to him.	
		<i>No. 6.</i>	
600		NOTES RECEIVABLE to VAUX & Co.,	600
		For their note received from them.	
		<i>No. 7.</i>	
19	49	SUNDRIES to INTEREST,	40
20	51	A. Brown, on his account, over-due.	
		C. Gray, " " " "	
		<i>No. 8.</i>	
275		EXPENSE to SUNDRIES.	
		For one quarter's rent due them,	225
		" " month's salary due him,	50
11,415	00		11,415 00

SECTION 3. — The Books of Original Entry.

142. Four books, from which transactions may be posted to the Ledger, are sufficient for any ordinary retail, jobbing, manufacturing, or commission business. These will afford all the information desired, with only the same labor required to keep an unsystematized set of single-entry books, except the slight trouble of posting a few totals at the end of each month. The books are themselves Journal forms, as follows:—

- I. SALES-BOOK:** which is a form of "Sundries Dr. to Merchandise," and
See form No. 1. is used only for charges of goods sold.
- II. INVOICE-BOOK:** which is a form of "Merchandise Dr. to Sundries," and
See form No. 2. is used for crediting purchases only.
- III. CASH-BOOK:** which is a form of "Cash Dr. to Sundries," and "Sundries Dr. to Cash," on pages opposite each other, and is
See forms Nos. 3 and 4. used for entering receipts and payments of money only.
- IV. JOURNAL:** which is a form of "Sundries Dr. to Sundries," and is
See forms Nos. 5 to 8. used for charges and credits of notes, interest, commissions, expenses, allowances, etc.

The JOURNAL was formerly a restatement of *all* transactions, which were commonly entered at first without classification. As now used, it is a statement of such transactions only as are not classified elsewhere. Entries in each of the original books should be made in the order of dates.

POSTING, or transferring entries from these books to the Ledger, consists in placing the correct amount on the proper side of the right account in the Ledger, with a reference to the date and page of the original entry, and to the page of the Ledger upon the original book. One date in all the books should be posted before proceeding with the next date. Totals cannot be posted till end of each month, but items of Accounts Current ought to be posted daily.

In the SALES-BOOK the amounts of goods sold are debited to the respective purchasers, and posted separately to their accounts in the Ledger. The total sum is posted monthly to the credit of the Merchandise account.

In the INVOICE-BOOK the amounts of goods bought are credited to the several parties from whom they are purchased, and posted separately to their accounts in the Ledger. The total sum is posted monthly to the debit of the Merchandise account.

The CASH-BOOK is used only for money received or paid out. All receipts are entered upon the debit, or left-hand, page: all disbursements are entered upon the

credit, or right-hand, page. The title of the account to which an item should be posted ought to be placed at the beginning of the entry. The total receipts of money for the month are to be posted to the debit of the Cash account in the Ledger; the total disbursements for the month are to be posted to the credit side of the same account, which will then show the same balance as does the Cash-book. If the balances from month to month are brought forward in the same column with the receipts in the Cash-book, care should be taken not to include this balance with the total receipts to be posted into the Ledger. Time in posting, and space in the Ledger, can be economized by placing items in separate columns, and posting the totals monthly to the proper account, as has been done with the Merchandise, Interest, and Expense accounts in the Cash-book following.

In the JOURNAL the debit and credit sides respectively of each entry should be separately posted to the proper accounts. When Journal entries to an account are numerous, the clerk can arrange a form for collecting them in one item, so that the totals only need be posted. The Journal may be advantageously divided into two parts, on pages facing each other, like the Cash-book. Entries to the *debit* of Accounts Current should be placed on the *left-hand* page; entries to the *credit* of Accounts Current should be placed on the *right-hand* page; cross-entries for transfers between accounts may be placed on either side, where it is most convenient.

SECTION 4. — John Scollay's Books.

143. The Journal items, stating the condition at the outset, are first in order, and explained as follows; viz., No. 1 is a statement of the assets of the proprietor, No. 2 is a statement of his debts. The totals are placed on a line with accounts to which they are to be posted. The debit and credit amounts, respectively, are placed in columns designating the sides; but in practice such items are often extended and footed like an invoice or sales entry, and the sides must be carefully observed in posting. No. 3 is made for the purpose of transferring their respective values to the proper heads of Merchandise and Farm at Ashby. Nos. 4 to 10 inclusive explain themselves. No. 11 is for the purpose of placing a statement of the values of Merchandise and Farm at Ashby, which are supposed to have been inventoried, upon the books. No. 12 is for the purpose of transferring the balances of profit on these accounts to the Profit and Loss account. No. 13 is for the purpose of transferring the balance of loss on this account to the Profit and Loss account. No. 14 is for the purpose of transferring the net profit to the credit of the Stock account. If a loss had been made, this entry would be reversed.

THE ACCOUNT-BOOKS OF JOHN SCOLLAY, WHOLESALE GROCER.

JOURNAL "A." — Boston, Wednesday, November 1, 1882.

Dr.

Cr. [1]

	L.F.								
		Dr. to	J. SCOLLAY, STOCK,						
No. 1.	25	SUNDRIES	Assets this day, as follows: viz, —					30,134	20
	5	James & Fisher	owe on %, due Dec. 7, 1882,	400	00				
	3	Gardner & Wylie	owe on %, due Dec. 19, 1882,	1,584	96				
	2	Dodge, Cook & Co.	owe on %, due Jan. 4, 1883,	371	26				
	4	Hart & Soley	owe on %, due Dec. 10, 1882,	451	98				
	17	Notes Receivable on hand: viz, —							
		May 9, 1882, 6 mos., L. Winsor,	2,500.00						
		July 14, " 4 " A. Smalley,	409.26						
		Sept. 10, " 2 " Chase & Loring,	2,807.54						
		Aug. 14, " 3 " Bond & Co.,	2,609.20	8,326					
No. 2.	19	Valuation, estimated value of							
		Farm at Ashby,	4,000.00						
		Merchandise, per inventory,	15,000.	19,000					
		(See Cash-book for money invested.)							
	25	J. SCOLLAY, STOCK,	Dr. to SUNDRIES,	4,142	79				
		Liabilities this day: viz, —							
	9	To L. Bartlett & Co.,	on %, due Jan. 9, 1883,					657	24
	11	" George Griswold,	on %, due Feb. 7, 1883,					209	55
	18	Notes Payable outstanding,							
		June 12, 1882, 6 mos., W. F. Weld & Co.,	1,900.00						
No. 3.		July 9, " 4 " Wm. Stearns & Co.,	871.49						
		Aug. 5, " 4 " Pennoyer & Co.,	504.51					3,276	
	19	SUNDRIES	Dr. to VALUATION,					19,000	
		For values transferred to separate heads,							
	20	Merchandise, as per inventory,		15,000					
	21	Farm at Ashby,		4,000					
		Monday, 6th.							
	15	W. F. WELD & Co.	Dr. to NOTES PAYABLE,	1,154	37				
	18	For my note issued, of Nov. 2, 1882, @ 4 mos.,						1,154	37
		Friday, 17th.							
No. 5.	14	N. REGGIO & Co.	Dr. to NOTES PAYABLE,	2,450	89				
	18	For my note issued, of Nov. 15, 1882, @ 4 mos.,						2,450	89
		Amounts carried forward,		56,882	25			56,882	25

[2]

JOURNAL "A."—Boston, Friday, November 17, 1882.

Dr.

Cr.

	L.F.								
		<i>Amounts brought forward,</i>		56,882	25	56,882	25		
No. 6.	17 2	NOTES RECEIVABLE Dr. to DODGE, COOK & Co., Received their note of Nov. 14, 1882, @ 2 mos.,		474	66		474	66	
		<i>Wednesday, 22d.</i>							
No. 7.	1 22	BEATTIE & BRAINE Dr. to INTEREST, For 4 mos. interest on \$246.93 @ 6%,		4	94		4	94	
No. 8.	17 1	NOTES RECEIVABLE Dr. to BEATTIE & BRAINE, Received their note of Nov. 21, 1882, @ 4 mos.,		251	87		251	87	
		<i>Tuesday, 28th.</i>							
No. 9.	22 3	INTEREST Dr. to GARDNER & WYLIE, Discount for prepayment of bill,		8	16		8	16	
No. 10.	17 3	NOTES RECEIVABLE Dr. to GARDNER & WYLIE, Received their note of Nov. 15, 1882, @ 4 mos.,		618	91		618	91	
		<i>Thursday, 30th.</i>							
No. 11.	19 20 21	VALUATION Dr. to SUNDRIES, Merchandise on hand, per inventory, Farm at Ashby, per inventory,		23,876	41		19,876 4,000	41	
	24	SUNDRIES Dr. to PROFIT & LOSS, For net profit under following heads:—					1,803	77	
No. 12.	20 21 22	Merchandise, Farm at Ashby, Interest,		1,740 55 8	06 37 35				
No. 13.	24 23	PROFIT & LOSS Dr. to EXPENSE, For net loss under that head,		207	38		207	38	
No. 14.	24 25	PROFIT & LOSS Dr. to J. SCOLLAY, STOCK, For net profit transferred to his account,		1,596	39		1,596	39	
				85,724	74		85,724	74	
		See pages 152 and 153 for another form of Journal.							

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SALES "A." — Boston, Friday, November 17, 1882.

Dr.

L.F.	<i>Amount brought forward,</i>			1,196	
6	OXFORD & HARVEY, 4 mos.,				
	1 cask currants, 80 — 19 = 61, @ .09	5	49		
	1 box ground cassia, 25 lbs., .30	7	50		
	box,		25		
	5 boxes pure cream-tartar, 50 lbs. each, 250 lbs., .33½	83	33		
	5 boxes, .30	1	50		
	4 doz. Cox's gelatine, 1.62½	6	50	104	57
	<i>Tuesday, 21st.</i>				
1	BEATTIE & BRAINE, net cash,				
	5 half-chests Oolong tea, "S. Russell, \$17," tare 13 lbs. each,				
	255 — 65 = 190 lbs., @ .47	89	30		
	10 bags Cape coffee, 1,139 — 23 = 1,116 lbs., .11	122	78		
	150 drums figs, 581 — 116 = 465 lbs., .07½	34	87	246	93
	<i>Friday, 24th.</i>				
2	DODGE, COOK & Co., net cash,				
	10 bbls. crushed sugar, 1,912 lbs., @ .10½	200	76		
	5 " coffee sugar, 1,150 " .10	115		315	76
	<i>Tuesday, 28th.</i>				
3	GARDNER & WYLIE,				
	5 bbls. whale-oil, 205½ — 2½ = 203 gals., @ .67	136	01		
	5 bales wicking, 55 lbs., .20	11			
	1 bale twine 12 " .19	2	28		
	20 lbs. nutmegs, .80	16			
	2 doz. pints olive-oil, 4.50	9			
	10 " 8-oz. yeast-powder, 2.	20			
	10 " " mustard, Premium, 2.	20			
	10 " " " Extra, 1.50	15		220	20
	<i>Thursday, 30th.</i>				
Paid Nov. 30. See debit cash.	HENRY GUILD,				
	52 bbls. "A" Haxall flour, @ 8.75	455			
	10 bladders snuff, 71½ lbs. .64	46	04		
		501	04		
20	Merchandise Cr., amount of sales in November,			2,092	90

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DEBIT CASH "A." — November, 1882.

(Received.)

DATE.	NAMES.	TOTAL	L. F.	ACCOUNTS CREDITED.	MDSE.	INTEREST.
1882.						
Nov. 1	To J. Scollay, stock,	1,500 00	25	1,500 00		
" 7	" James & Fisher, on %,	400	5	400		
" 8	" Mdse., cash sales, on %,	271 59	✓		271 59	
" 9	" Gardner & Wylie, on %,	1,500	3	1,500	189 23	
" 9	" Mdse., cash sales, on %,	189	✓			
" 9	" Hart & Soley, on %,	451 98	4	451 98		
" 10	" Notes rec., L. Winsor's, Mdse., cash sales,	2,500 54	17	2,500	284 54	
" 10	" James & Fisher, on %,	416 92	5	416 92		
" 11	" Tuxbury & Wardner, " Mdse., cash sales,	109 55	7	109 55	198 49	
" 13	" Int., dis. by G. Griswold, " Farm at Ashby, rec'd for prod',	198 2	✓			2 33
" 13	" Notes rec., Chase & Loring's, Mdse., cash sales,	214 70	21	214 70	204 37	
" 14	" Notes rec., A. Smalley's, " " " Bond & Co.'s,	2,807 54	17	2,807 54		
" 14	" Mdse., cash sales,	204 37	✓			
" 14	" Notes rec., A. Smalley's, " " " Bond & Co.'s,	409 26	17	409 26	259 87	
" 14	" Mdse., cash sales,	2,609 20	17	2,609 20		
" 15	" Int., disc. by L. Bartlett & Co.,	259 87	✓			5 90
" 17	" Mdse., cash sales,	5 90	✓		344 39	
" 17	" Int., discount on R. Hill's note,	344 39	✓			7 67
" 18	" Mdse., cash sales,	7 67	✓		304 27	
" 20	" " " "	304 27	✓		589 28	
" 20	" " " "	589 28	✓		454 31	
" 30	" " " "	454 31	✓		501 04	
" 30	" " sales, folio 4, H. Guild,	501 04	✓			
		16,536 43	16	12,919 15	3,601 38	15 90
	Mdse. Cr., total cash sales,		20	3,601 38		
	Interest Cr., total receipts for,		22	15 90		
				16,536 43		
	Cash Dr., total receipts,					
	December, 1882.					
Dec. 1	To balance from Nov. 30,	8,316 64				
	H. Guild's bill paid is not posted to the Ledger, but entered as a cash sale, with a reference to the charge. It is marked paid, and extended short on the sales-book.					
	See pp. 70 and 71 for manner of proving cash daily.					

(Paid out.)

CREDIT CASH "A." — November, 1882.

[7]

DATE.	NAMES.	TOTAL.	L. F.	ACCOUNTS DEBITED.	MDSE.	EXPENSE.
1882.						
Nov. 1	By Expense, for stationery,	6 71	✓			6 71
" 6	" Mdse., allowance on goods,	1 60	✓		1 60	
" 7	" Expense, express from J. & F.,	25	✓			25
" 8	" Int., disc. on J. & F.'s bill,	2	22	2		
" 9	" Notes pay., Pennoyer & Co.,	504 51	18	504 51		
" 9	" Int., disc. on Hart & Soley's bill,	2 33	22	2 33		
" 11	" Mdse., goods at auction-sale,	284 75	✓		284 75	
" 11	" Expense, for daily paper,	2	✓			2
" 11	" Mdse., bill of J. Smith's,	27 58	✓		27 58	
" 11	" Notes pay., W. Stearns & Co.,	871 40	18	871 40		
" 11	" George Griswold, on %,	209 55	11	209 55		
" 11	" J. Scollay, stock,	100	25	100		
" 13	" H. Harris & Co., on %,	1,316 08	12	1,316 08		
" 13	" Pennoyer & Co.,	1,575 95	13	1,575 95		
" 14	" Farm at Ashby, for tools,	159 33	21	159 33		
" 14	" Exp., freight S.S. "Pequot,"	15 00	✓			15 00
" 15	" Notes pay., W. F. Weld & Co.,	1,900	18	1,900		
" 15	" L. Bartlett & Co., on %,	657 24	9	657 24		
" 17	" Notes rec., bought R. Hill's note,					
" 17	Sept. 9, 1882, 6 mos.,	400	17	400		
" 30	" Exp., store rent, 1 mo.,	83 33	✓			83 33
" 30	" " clerk's salary, 1 mo.,	100	✓			100
		8,219 79		7,608 48	313 93	207 38
	Mdse. Dr., total cash purchases,		20	313 93		
	Expense Dr., total paid,		23	207 38		
	Cash Cr., total disbursed,		16	8,219 79		
	Balance on hand to Dec. 1,			8,316 64		
				16,536 43		
December, 1882.						
Cash entries should exactly correspond to the items they settle; thus, Nov. 17, \$392.33 is paid for R. Hill's note, for which \$400 will be received when it is due; therefore the face of the note (\$400) is charged, and the discount (\$7.67) is credited on the other side.						

JOHN SCOLLEY'S LEDGER.

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LEDGER—SALES SECTION.

<i>Dr.</i> (Page 1.)				<i>Beattie & Braine.</i> (Andover, Mass.)				<i>Cr.</i>	
1882.				1882.					
Nov. 21	To mdse.,	net,	4	Nov. 22	By note,	2	251	87	
" 22	" interest,		2				251	87	

(Page 2.)				<i>Dodge, Cook & Co.</i> (Worcester, Mass.)					
1882.				1882.					
Nov. 1	To stock, due Jan. 4, '83,	1	371	Nov. 17	By note,	2	474	66	
" 2	" mdse., 4 mos.,	3	103						
" 24	" " net,	4	315						

(Page 3.)				<i>Gardner & Wylie.</i> (Rockland, Me.)					
1882.				1882.					
Nov. 1	To stock, due Dec. 19, '82,	1	1,584	Nov. 8	By cash,	6	1,500	00	
" 6	" mdse., 4 mos.,	3	312	" 28	" interest,	2	8	16	
" 28	" " 4 "	4	229		" note,	2	618	91	
			2,127				2,127	07	

(Page 4.)				<i>Hart & Soley.</i> (Dover, N.H.)					
1882.				1882.					
Nov. 1	To stock, due Dec. 10, '82,	1	451	Nov. 9	By cash,	6	451	98	
" 3	" mdse., net,	3	217						

<i>Dr.</i>		<i>(Page 6.)</i>		<i>James & Fisher.</i>				<i>(Portland, Me.)</i>		<i>Cr.</i>	
1882.						1882.					
Nov. 1	To stock, due Dec. 7, '82,	1	400	00	Nov. 7	By cash,	6	400	00		
	" " " net,	3	416	92	" 10	" " "	6	416	92		
" 10	" " " "	3	36	52							

(Page 6.)		Oxford & Harvey.				(Portsmouth, N.H.)			
1882.									
Nov. 17	To mdse.,	4 mos.,	4	104	57				

(Page 7.)				<i>Tuxbury & Wardner.</i>				(Windsor, Vt.)			
1882.							1882.				
Nov. 7	To mdse.,	net,	3	109	55	Nov. 11	By cash,		6	109	55

(Page 8.)			<i>W. B. Bradford.</i>			(Boston.)		
				1882. Nov. 25	By mdse.,	net,	5	136 44

(Page 9.)			<i>L. Bartlett & Co.</i>			(Boston.)		
1882. Nov. 15	To cash,	7	657	24	1882. Nov. 1	By stock, due Jan. 9, '88,	1	657 24

(Page 10.)		<i>Emmons, Morrill & Co.</i>		(Boston.)	
				1882. Nov. 18	By mdse., net, 5 309 24

LEDGER—PURCHASE SECTION.

<i>Dr.</i> (Page 11.)		<i>George Griswold.</i>			(New York.)		<i>Cr.</i>		
1882. Nov. 11	To cash,	7	209	55	1882. Nov. 1	By stock, due Feb. 7, '83, mdse, 6 mos.,	1 5	209 1,573	55 74

(Page 12.)		<i>H. Harris & Co.</i>			(Boston.)				
1882. Nov. 13	To cash,	7	1,316	08	1882. Nov. 3	By mdse., net,	5	1,316	08

(Page 13.)		<i>Pennoyer & Co.</i>			(New York.)				
1882. Nov. 13	To cash,	7	1,575	95	1882. Nov. 7	By mdse., net,	5	1,575	95

(Page 14.)		<i>N. Reggio & Co.</i>			(Boston.)				
1882. Nov. 17	To note,	1	2,450	89	1882. Nov. 15	By mdse., 4 mos.,	5	2,450	89

(Page 15.)		<i>W. F. Weld & Co.</i>			(Boston.)				
1882. Nov. 6	To note,	1	1,154	37	1882. Nov. 2	By mdse., 4 mos.,	5	1,154	37

LEDGER—GENERAL SECTION.

(Page 16.)		<i>Cash.</i>							
1882. Nov. 30	To receipts,	6	16,536	43	1882. Nov. 30	By disbursements,	7	8,219	79

LEDGER—GENERAL SECTION.

<i>Dr.</i>		<i>(Page 17.)</i>		<i>Notes Receivable.</i>				<i>Cr.</i>	
1882.					1882.				
Nov. 1	To stock,	1	8,326	00	Nov. 9	By cash,	6	2,500	00
" 17	" Dodge, C. & Co.,	2	474	66	" 13	" "	6	2,807	54
" "	" cash, R. Hill,	7	400		" 14	" "	6	409	26
" 22	" Beattie & Braine,	2	251	87	" "	" "	6	2,609	20
" 28	" Gardner & Wylie,	2	618	91					

<i>(Page 18.)</i>		<i>Notes Payable.</i>							
1882.					1882.				
Nov. 8	To cash,	7	504	51	Nov. 1	By stock,	1	3,276	00
" 11	" "	7	871	49	" 6	" Weld & Co.,	1	1,154	37
" 15	" "	7	1,900		" 17	" Reggio & Co.,	1	2,450	89

<i>(Page 19.)</i>		<i>Valuation.</i>							
1882.					1882.				
Nov. 1	To stock,	1	19,000	00	Nov. 1	By mdse. and farm,	1	19,000	00
" 30	" mdse. and farm,	2	23,876	41					

<i>(Page 20.)</i>		<i>Merchandise.</i>							
1882.					1882.				
Nov. 1	To valuation,	1	15,000	00	Nov. 30	By sales,	4	2,092	90
" 30	" invoice,	5	8,516	71		" cash,	6	3,601	38
	" cash,	7	313	93		" valuation,	2	19,876	41
	" Profit and Loss,	2	1,740	05					
			25,570	69				25,570	69

<i>(Page 21.)</i>		<i>Farm at Ashby.</i>							
1882.					1882.				
Nov. 1	To valuation,	1	4,000	00	Nov. 13	By cash,	6	214	70
" 14	" cash,	7	159	33	" 30	" valuation,	2	4,000	
" 30	" Profit and Loss,	2	55	37					
			4,214	70				4,214	70

LEDGER—GENERAL SECTION.

<i>Dr.</i>		<i>(Page 22.)</i>		<i>Interest.</i>		<i>Cr.</i>	
1882.				1882.			
Nov. 7	To cash,	7	2 00	Nov. 22	By B. & B.,	2	4 94
" 9	" "	7	2 33	" 30	" cash,	6	15 90
" 28	" G. & W.,	2	8 16				
" 30	" Profit and Loss,	2	8 35				
			20 84				20 84

(Page 23.)			Expense.		
1882.					1882.
Nov. 30	To cash,	7	207	38	Nov. 30
					By Profit and Loss,
					2
					207
					38

(Page 24.)		Profit and Loss.							
1882.					1882.				
Nov. 30	To expense,	2	207	38	Nov. 30	By mdse.,	2	1,740	05
	“ stock, net profit,	2	1,596	39		“ farm,	2	55	37
						“ interest,	2	8	35
			1,803	77				1,803	77

(Page 25.)		John Scollay (Stock).	
1882.		1882.	
Nov. 1	To debts, " bal., net capital,	1	4,142 79 27,491 41 31,634 20
Nov. 11 " 30	To cash, " bal., net capital,	7	100 00 28,987 80 29,087 80
</			

LEDGER—GENERAL SECTION.

SUMMARY REPORTS.

<i>Dr.</i>		<i>(Page 26.)</i>		<i>Trial Balance, Nov. 30, 1882.</i>		<i>Cr.</i>	
L.F.	Acc'ts receivable (see below),	673	99	L.F.	Acc'ts payable (see below),	2,019	42
16	Cash on hand,	8,316	64	18	Notes payable, unredeemed,	3,605	26
17	Notes receivable on hand,	1,745	44				
	Total assets,	10,736	07		Total debts,	5,624	68
20	Merchandise, outlay,	18,136	36	22	Interest, return,	8	35
21	Farm at Ashby, "	3,944	63	25	J. Scollay (stock), bal. capital,	27,391	41
23	Expense, "	207	38				
		33,024	44			33,024	44

Balance-Sheet after taking Inventory, Nov. 30, 1882.

<i>L.F.</i>		ASSETS.		<i>L.F.</i>		DEBTS.	
	Acc't's receivable,	673	99		Acc't's payable,	2,019	42
16	Cash on hand,	8,316	64	18	Notes payable unredeemed,	3,605	26
17	Notes receivable on hand,	1,745	44				
19	Valuation of mdse., 19,876.41:				Total debts,	5,624	68
	" " farm, 4,000.	23,876	41	25	J. Scollay (stock), net capital,	28,987	80
	Total assets,	34,612	48			34,612	48

Lists of Balances of Personal Accounts, Nov. 30, 1882.

<i>L.F.</i>		Acc'ts Receivable; viz.,—		<i>L.F.</i>		Acc'ts Payable; viz.,—	
2	Dodge, Cook & Co.,	315	76	8	W. B. Bradford,	136	44
4	Hart & Soley,	217	14	10	Emmons, Morrill & Co.,	309	24
5	James & Fisher,	36	52	11	George Griswold,	1,573	74
6	Oxford & Harvey,	104	57				
		673	99			2,019	42

(See Balances above, in Reports.)

SECTION 5. — Trial Balances.

144. The trial balance is a list of remainders of the Ledger accounts, which is drawn off monthly in order to know whether all entries have been posted correctly. When arranged in the proper order, it also affords a report of the condition of the business. Each side of all the Ledger accounts is added, and the figures of the debit or credit remainder, or difference, should be set down in pencil on the side of the Ledger upon which it belongs. A list of these remainders is made upon a separate sheet, with the debit and the credit balances in their respective columns. If the footings of the two columns are exactly the same, it is presumptive proof that the Ledger has been correctly posted. It is not, however, positive proof, as an entry may be posted to the right side of the Ledger, but to the wrong account. Such errors can be discovered only by checking postings carefully. Accounts which have been settled and closed, although not included in the trial balance, may contain errors affecting the proof. An error of only a single cent should be sought for as persistently as if it were a large sum. The trial balance should be taken off before the estimated valuation of property is placed in the Ledger.

TRIAL BALANCE REPORT, NOV. 30, 1882.

<i>Dr.</i>	<i>Ordinary Accounts.</i>	<i>Cr.</i>	<i>Dr.</i>	<i>Subordinate Accounts.</i>	<i>Cr.</i>
	Accounts Receivable.			Merchandise.	
673.99	Due to us.		18,136.36	Net outlay.	
	Accounts Payable.			Farm at Ashby.	
	Due to others,	2,019.42	3,944.63	Net outlay.	
	Cash.			Interest.	
8,316.64	Balance on hand.			Net return,	8.35
	Notes Receivable.			Expense.	
1,745.44	Others' notes due us.		207.38	Net outlay.	
	Notes Payable.			J. Scollay (Stock).	
	Our notes unpaid,	3,605.26		Net bal. of capital,	27,391.41
<u>10,736.07</u>		<u>5,624.68</u>	<u>22,288.37</u>		<u>27,399.76</u>
10,736.07	Total assets.	Ordinary Accounts.	Total debts,	5,624.68	
22,288.37	" outlay.	Subordinate Accounts.	" return,	27,399.76	
<u>33,024.44</u>				<u>33,024.44</u>	
Ordinary Accounts, assets,	10,736.07	Subordinate Accounts, return,	27,399.76		
" " debts,	5,624.68	" " outlay,	22,288.37		
Debit balance,	5,111.39	Credit balance,	5,111.39		

As we originally invested, including farm and merchandise, the sum of \$27,491.41, and have now, aside from them, net assets equal to \$5,111.39, we conclude that the value of farm and merchandise now on hand is equal to \$22,380.02, provided we have exactly paid the expenses of doing business, and have made no profit. We cannot know the actual profit until we have taken an inventory, or account of stock; that is, a list of quantities and values of goods on hand, and of the value of the farm. We suppose this to have been done, and, having found their actual value to be \$23,876.41, we make Journal entry No. 11, in order to place it in the Ledger. A summary report of the footings of the trial balance, from month to month, in condensed form, like that given at the end of the Ledger, is valuable and convenient for reference when placed on a page by itself in the Ledger. The footings of the balance-sheet may also be stated in the same way.

SECTION 6. — The Yearly Balancing of the Books.

145. It is the custom of merchants to take an account of stock either annually or semi-annually, and to incorporate the results in the Ledger. This is done in order to bring the profits or losses of the preceding term of business into the Stock account, and thus show them as an increase or decrease of capital for the succeeding term. It must be remembered that the Stock account shows only the capital at the beginning of a term, and is always, in fact, really as much more or less as the profits or losses since the commencement would make it. The entries for this purpose having been made, and the balance-sheet proved, the books are ready for the next term of business, and cannot be closed until the goods are all sold, notes all collected and paid, accounts all collected and paid, and money all paid out: in short, not until the business is settled. When a Ledger is full, it is better to settle the old accounts, if possible, and close it, than to transfer them to a new Ledger.

146. Referring to Journal entry No. 14, it may be said that in a business where there are several partners, some of whom pay interest on the other's capital, it is better to transfer the balance of profit to a "Surplus" account, or let it remain as a balance of the Profit and Loss account, so as not to complicate the reckoning of interest on the proprietors' Stock account. If *balances* of partners' accounts, including interest, are brought forward from year to year, and interest reckoned on *balances*, compound interest will be computed when it may not be intended to do so.

147. The manner of stating valuation which we have adopted is clearer than, and differs from, the mode in common use. The ordinary mercantile method of placing estimated values of property upon the books would be the following; viz.,

the value of merchandise would be debited directly to the Merchandise account at the beginning of business. At the close of the business we have these footings:—

<i>Dr.</i>		<i>Cr.</i>
\$23,830.64	<i>Merchandise.</i>	\$5,804.28.

We find, after taking an inventory, that the value of merchandise on hand is \$19,876.41, and make the following Journal entry: viz.,—

<i>Mdse. (New Acct.)</i>	<i>Dr. to</i>	<i>Mdse. (Old Acct.)</i>
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For value of goods on hand, \$19,876.41.

We then post the credit side only of this entry to the Merchandise account, and find, after having done so, that it shows a credit balance of \$1,740.05. We then make an entry of

<i>Mdse. (Old Acct.)</i>	<i>Dr. to</i>	<i>Profit and Loss.</i>
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For transfer of profit on merchandise, \$1,740.05.

After posting the debit side of this entry to the Merchandise account, we rule off the account, and close it. We re-open it by posting the debit side of "Merchandise (New Account) Dr. to Merchandise (Old Account), \$19,876.41," below the double lines for a new account, and this amount would be placed in a list of assets under the head of Merchandise, just as we have placed it under the head of Valuation. Real estate and other property accounts are treated in the same way.

CHAPTER XV.

SECTION 1.—Examples for Practice.

Example 1.

Dec. 1, 1882, John Scollay and Theodore Winthrop form an equal copartnership, for the continuation of the former's business, under the firm name of Scollay & Winthrop. John Scollay puts in all the accounts receivable, notes receivable, cash, and merchandise on hand, as per balance-sheet of his books preceding (exclusive of the Ashby Farm), amounting to \$30,612.48. His liabilities, or the accounts payable and notes payable, as in the balance-sheet, amounting to \$5,624.68, are assumed by the firm. His net share of the capital stock is \$24,987.80. The particulars of these items, names, dates, terms of credit, and amounts, are to be

stated in detail. Theodore Winthrop puts in \$25,000 cash as capital, and owes no debts. Enter and post the foregoing and the following transactions by double entry, and make an exhibit and proof of the result.

Dec. 2, 1882. Paid J. Scollay's note to W. F. Weld & Co., due March 2/5, being allowed a discount of 2% (\$23.08); remainder, paid in money, is \$1,131.29. Hart & Soley paid bill of Nov. 3 (\$217.14) in money, and bought merchandise, on 30 days, amounting to \$256.29. *Dec. 4.* Sold James & Fisher merchandise, on 10 days, amounting to \$131.46; sold merchandise for cash on delivery, \$459.87; paid an expense bill in cash, for stationery, \$23.48. *Dec. 5.* Sold merchandise for cash, \$614.54. *Dec. 6.* Sold merchandise to James & Fisher on account, 30 days' credit, \$219.57; Dodge, Cook & Co. pay cash, on account, \$200; Oxford & Harvey buy merchandise, on 30 days, amounting to \$167.40; James H. Gillis buys merchandise, on 30 days, amounting to \$169.90; sold merchandise for cash, \$341.18. *Dec. 7.* Dodge, Cook & Co. buy merchandise, on 10 days, for \$128.14. *Dec. 10.* James & Fisher pay cash, on account, \$167.98. *Dec. 12.* Oxford & Harvey settle their bill of Nov. 17 with their note (same date) @ 4 months, \$104.57. *Dec. 15.* Cash sales of merchandise, \$3,764.21. *Dec. 16.* Paid George Griswold cash, on account, \$1,573.74; interest discount on this item for cash, \$35.42; expense, paid clerk's salary in cash for two weeks, \$50. *Dec. 18.* Paid W. B. Bradford on account, in cash, \$136.44. *Dec. 19.* Paid Emmons, Morrill & Co., in cash, on account, \$309.24. *Dec. 20.* Dodge, Cook & Co. pay cash, on account, \$243.90. *Dec. 21.* Cash sales of merchandise, \$2,987.42. *Dec. 22.* Paid J. Scollay's note to N. Reggio & Co., \$2,450.89; received cash discount for above payment, 3%, \$73.50. *Dec. 23.* Sold Dix, Rogers & Co. merchandise, on account, amounting to \$1,594.29. *Dec. 25.* Bought the schooner "Sea Gull," for cash, \$8,000. *Dec. 30.* Expended for fitting her out, cash, \$1,500; take off trial balance for December.

Jan. 1, 1883. Bought 10 shares Flint Rock Bank stock, @ \$105, cash, \$1,050; paid rent of store in cash, for one month, \$112.50. *Jan. 2.* Bought merchandise of George Griswold on account, @ 30 days, amounting to \$3,519.45. *Jan. 5.* Bought merchandise of W. B. Bradford on account, @ 4 months, amounting to \$721.89. *Jan. 6.* Cash sales of merchandise, \$1,549.24. *Jan. 8.* Hart & Soley pay cash, on account, \$256.29; James & Fisher pay cash, on account, \$219.57. *Jan. 10.* Oxford & Harvey pay cash, on account, \$167.40. *Jan. 12.* Freight money received on account of schooner "Sea Gull," \$354.69. *Jan. 13.* Paid on account of schooner "Sea Gull," for stores, \$68.90 cash; for repairs, rigging, \$54 cash; for wages of crew, \$120 cash; total, \$242.90. *Jan. 15.* Sold James & Fisher merchandise amounting to \$598.54; sold Dodge, Cook & Co. merchandise amounting to \$248.42. *Jan. 17.* Sold merchandise to Hart & Soley, on account, for \$189.94; Dodge, Cook & Co. pay in money their note due this day, \$474.66. *Jan. 18.* Received money from J. H. Gillis, on account, \$169.90; cash sales of merchandise, \$2,014.82. *Jan. 19.* Sold merchandise to Grennan, Cornwall & Co., on account, \$256.67; John Scollay draws out merchandise for personal use, \$34.45; Theodore Winthrop draws money for personal use, \$40. *Jan. 20.* Dix, Rogers & Co. pay cash, on account, \$1,000.; sold J. C. Tyler & Co.

merchandise amounting to \$16.15; sold Farrar & Dana merchandise amounting to \$20.49; sold Kaulback & Balch merchandise amounting to \$62.50. *Jan. 22.* Sold Alex. Lewis & Son merchandise amounting to \$186.54; R. Hill prepaid his note due March 9/12, \$400; paid rebate of interest, \$3.37, cash; received cash dividend on Flint Rock Bank stock, \$73.50; paid cash, expense of business trip to New York, by J. Scollay, \$20. *Jan. 23.* Paid cash for stationery, expense, etc., \$2.75. *Jan. 24.* Paid George Griswold cash, on account, \$2,000; merchandise, cash sales, \$2,841.32; sold Moore & Foote (Detroit, Mich.) merchandise, @ 3 months, \$1,525.25. *Jan. 25.* Bought merchandise of W. B. Bradford, net cash, 5 days, \$819.41; sold Leach & Goodrich (St. Louis, Mo.) merchandise, @ 3 months, \$2,947.54; sold Haven, Kamp & Hynes (St. Louis, Mo.) merchandise, @ 3 months, \$4,524.19. *Jan. 26.* Bought of Robert C. Mackay & Son coffee and spices, @ 6 months, amounting to \$7,413.24. *Jan. 31.* Take off trial balance for January.

Feb. 3. Moore & Foote remit their note of Jan. 24, 3 months, on account, \$1,525.25; paid G. Griswold cash, on account, \$1,519.45, less interest, \$39.11. *Feb. 5.* Paid W. B. Bradford cash, on account, \$721.89, less \$11.17 discount. *Feb. 7.* Merchandise, cash sales received, \$1,967.86; settled R. C. Mackay's account with note of Jan. 25, @ 6 months, \$7,413.24; sold Dodge, Cook & Co. merchandise, on account, \$142.31. *Feb. 8.* Sold Dix, Rogers & Co. merchandise, on account, \$115.71; sold Hart & Soley merchandise, on account, \$54.89. *Feb. 9.* Sold Oxford & Harvey merchandise, on account, \$256.47. *Feb. 10.* Sold James & Fisher merchandise, on account, \$136.28; sold J. H. Gillis merchandise, on account, \$142.21. *Feb. 12.* Sold Grennan, Cornwall & Co. merchandise, on account, \$87.42. *Feb. 15.* Dodge, Cook & Co. pay cash, on account, \$248.42; James & Fisher pay cash, on account, \$598.54. *Feb. 17.* Grennan, Cornwall & Co. pay money, on account, \$256.67. *Feb. 20.* Money received from J. C. Tyler & Co., on account, \$16.15; Farrar & Dana pay cash, on account, \$20.49; Kaulback & Balch pay money, on account, \$62.50. *Feb. 21.* A. Lewis & Son remit money on account, \$100; paid express on money from them, 25 cts. *Feb. 24.* Merchandise, cash received from sales, \$1,819.20; paid for postage-stamps, etc., \$11.19. *Feb. 25.* Sold one-half schooner "Sea Gull" to Capt. Smalley for cash (received the money), \$5,000. *Feb. 26.* Sold 5 shares Flint Rock Bank stock, @ \$110 per share, cash, \$550. *Feb. 28.* Paid clerk-hire to date, cash, \$250; paid truckman, charges, cash, \$49.87; paid two-months' store rent, cash, \$225. *Feb. 29.* Hart & Soley pay cash, on account, \$189.94; John Scollay draws cash for personal account, \$1,000; Theodore Winthrop draws cash for personal account, \$1,000; paid note to R. C. Mackay & Son, due July 28, \$7,413.24, less interest @ 9%, 5 months, \$278; take off trial balance for February. *Feb. 28.* Valuation of merchandise per inventory, \$4,500, at cost; valuation of 5 shares Flint Rock Bank stock, at cost, \$105, is \$525; valuation of the firm's half of schooner "Sea Gull," \$4,500. *March 1.* The firm dissolves by agreement. Scollay retires, taking the firm's half of schooner "Sea Gull," \$4,500; bank stock, \$525; all the notes receivable, \$2,500.60, and \$18,749.97 in money. Winthrop continues the business, taking all the accounts receivable, \$9,087.85; the merchandise, \$4,500; cash, \$13,513.78, and assuming outstanding debts. Close the Ledger, and make exhibits of their separate condition in commencing anew.

Example 2.

A county treasurer reports the following receipts and expenditures in money at his office during the month of April. Enter and post the items by double entry, opening an account with each fund. The relation of the treasurer's personal account to the other accounts is opposite to that of the Stock account in a private business. Show the final balances of money and the fund accounts.

April 1. Money received from W. Brown, late treasurer, \$10,955.98, and placed to the credit of the following funds: viz., State of Minnesota, \$1,371.10; Public Lands, \$247.60; Current School Fund, \$66.50; County Revenue Fund, \$3,375.20; County Poor Fund, \$891.12; Road and Bridge Fund, \$1,521.29; County Bonds and Interest, \$1,740.38; Town of Smithville, \$825.40; Town of Brownfield, \$369.72; School District No. 1, \$547.67.

Current Receipts per Register: viz., April 3. Tax collections, \$455.39; Current School Fund, \$30. April 4. County Revenue, \$15. April 8. Tax collections, \$697.48; Public Lands, \$93.80. April 30. Tax collections, \$5,499.55.

Warrants paid on account of the following funds: viz., April 4. County Revenue, \$980.20; County Poor, \$408.53. April 8. Road and Bridge, \$795; County Poor, \$136.24; County Revenue, \$139.28; School District No. 1, \$235.62; Town of Smithville, \$256.50. April 9. Public Lands, \$246.36; Town of Brownfield, \$369.72. April 10. State of Minnesota, \$1,371.10; County Bonds, \$1,000; Interest Coupons, \$35. April 24. County Revenue, \$37.25; County Poor, \$29.16. April 30. Town of Smithville, \$568.90.

Example 3.

The treasurer of a county makes the following report for the year ending April 30, 1882. Enter and post the details as in double entry, and show the financial condition of the county at close of the term. The treasurer's personal account will bear a relation to the other accounts opposite to that of the Stock account in a private business. The appropriations may be stated for posting into the Ledger by a Journal entry of "Tax Dr. to Appropriations" (as enumerated). The items of income and expenditure are totals of many small entries for the year.

Resources, May 1, 1881. — Cash balance on hand, \$9,674.02. Liabilities outstanding on May 1, 1881: viz., county bonds due in 1881, \$29,600; bonds due in 1886, \$21,500; bonds due in 1891, \$20,000; total debt, \$71,100. Receipts during the year: income from the county farm, \$4,819.55; repayments on account of the support of paupers off the farm, \$307.98; court fines and clerks' fees paid into the treasury, \$759.83; county tax collected, \$83,000; total, \$88,887.36. Payments during the year: Supreme Court, \$1,298.53; jury pay-rolls, \$3,061.40; State pay-rolls, \$2,075.62; county farm, \$20,948.48; paupers off the farm, \$10,967.39; bonds due in 1881, taken up, \$29,100; interest coupons paid, \$3,534; county jail, \$5,674.16; State Asylum, \$985.30; State Industrial School, \$564.35; sheriffs' deputies,

and messengers, \$1,484.39; county commissioners, solicitor, and treasurer, \$3,417.33; justices' and officers' fees, \$764.75; registry of deeds and probate, \$261.72; new index, \$737.37; miscellaneous, \$1,962.81; total, \$86,837.60.

The tax collected was appropriated as follows: viz., Supreme Court, \$2,000; jury payroll, \$5,000; State pay-rolls, \$6,000; county farm, \$25,000; paupers off the farm, \$10,000; bonds, and interest coupons, \$21,000; county jail, \$5,000; State Asylum, \$500; State Industrial School, \$500; sheriffs' deputies, and messengers, \$2,500; county commissioners, etc., \$2,500; justices' and officers' fees, \$1,000; registry of deeds and probate, \$500; new index, \$500; miscellaneous, \$1,000; total, \$83,000.

Example 4.

The treasurer of a benevolent society makes the following report on May 1, 1882. Enter and post the items by double entry, and show the financial condition of the society on that date. The endowment fund and bequests bear a similar relation to that of a Stock account toward the business.

Condition of the Society, May 1, 1881. — Resources: cash on hand, \$2,794.58; Osborne Endowment Fund, \$2,000, invested in a mortgage note of Thomas Brown, of May 1, 1879, 5 years, @ 6%; Elias Magoun bequest, \$5,000, invested in a note of Eben Thurston, May 1, 1880, 5 years @ 6%, secured by mortgage; value of real estate, \$30,000. *Liabilities:* the society's notes payable, secured by mortgage on its land and buildings, due in 1882, \$3,325; due in 1892, \$10,000; total, \$13,325; rate of interest, 4%. *Receipts during the year:* contributions, \$30,127.45; interest from T. Brown on Osborne Fund, \$120; interest from E. Thurston on Magoun bequest, \$300; bequest from William L. Stearns, \$3,000. *Payments during the year:* invested the Stearns Fund in a note of Loring Ward, July 1, 1881, 3 years, \$3,000, @ 6%, secured by mortgage; paid beneficiaries of Osborne Fund, \$120; paid the society's note, due this year, \$3,325; paid interest on mortgage notes due in 1892, \$400. *Current expenses:* special work of the society, \$16,387.25; hospital work: viz., provisions, \$865.22; groceries, \$1,369.54; fuel, \$491.75; flour and bread, \$561.16; drugs and medicines, \$230.48; dry-goods, \$128.54; crockery and table ware, \$228.41; repairs of buildings, \$137.10; temporary deposit with New York Trust Company, \$5,000.

Example 5.

Andrew Bell and Charles Dole form an equal copartnership for three years, in which Bell invests \$25,000 cash capital. Dole puts in no capital, but for special reasons shares equally in the profits of the business, paying Bell 6% per annum interest on his capital. The *balance* of interest on Bell's account is to be reckoned and credited to him at close of each year, and charged to Dole's account; the average time for which interest is charged to Bell on money he withdraws is $5\frac{1}{2}$ months each year. Required the proportion due to each partner at dissolution and

entries in liquidation assigning to each his ratio of the assets. The following business is done : viz. —

First year: purchases, \$75,000; sales, \$100,000; expenses, \$3,000; Bell draws \$3,000, Dole draws, \$1,500. *Second year:* purchases, \$100,000; sales, \$125,000; expenses, \$3,500; Bell draws, \$3,500; Dole draws, \$2,000. *Third year:* purchases, \$150,000; sales, \$180,000; expenses, \$4,000; Bell draws, \$3,000; Dole draws \$2,500. At close of the third year the net assets are as follows : viz., Accounts receivable, \$50,000; notes receivable, \$20,000; cash on hand, \$9,000; value of merchandise on hand, \$30,000.

Example 6.

Four partners invest capital, viz. : — A, \$15,000; B, \$10,000; C, \$6,000; and D, \$7,000, and agree that A, B, and C are each to have five-eighteenths, while D is to have three-eighteenths, of the gross profits. Required each partner's share of the remaining capital.

The year's business was, purchases, \$380,000; sales \$400,000; expenses, \$17,000. A, B and C drew out \$4,000 each, D drew out \$3,000. The net assets at end of year were, accounts receivable, \$14,000; notes receivable, \$9,000; cash, \$3,000; value of merchandise unsold, \$15,000.

SECTION 2. — The Test Ledger.

148. This consists of names and figures alone, with dates, at the top of each column, for a three-months' term. Each account occupies three lines extending across the page, and is separated from its neighbors by the horizontal lines. Each month has its separate debit and credit columns respectively. It is intended for practice in taking off trial balances, and as a *test of accuracy* in addition and subtraction, and also to afford a series of separate examples to a class of thirty or more scholars. By giving one account to each, and the footing of the monthly columns to the more expert, all may work together to obtain a statement of the business. The balance of each account is taken separately. Thus, Agnew's account shows debit balances as follows : viz., Jan. 31, \$167.86; Feb. 29, \$698.10; March 31, \$236. The totals may be proved by the footing of the columns. The *balances only* of each account are intended to be taken; thus, the January trial balance is found by adding the debit and credit side of each account in the January columns, subtracting the lesser side from the greater, and setting down the remainder, in order, upon the proper side, on a separate paper. The total footings of each side of these remainders will be equal. The February balances include all the amounts in both January and February columns, while the March balances include every thing in all the columns. The trial balance-sheet affords a report of the balance of each account, and, when put together in the order given, a summary report of the condition of the entire business.

TEST LEDGER—SALES SECTION.

*Dr.**(Ordinary) Accounts Receivable.**Cr.*

NAMES.	January.	February.	March.	NAMES.	January.	February.	March.
No. 1. Agnew, L.,	114.49 21.50 167.86	698.10 71.87 14.50	284.55 116.51 119.49	No. 1. Agnew, L.,	135.99	167.86 86.37	698.10 284.55
No. 2. Bartlett, W.,	251.40 89.71 46.54	141.54 253.35 116.15	227.86 145.54 11.70	No. 2. Bartlett, W.,	251.40 136.25	394.89	116.15 227.86
No. 3. Choate, H.,	76.67 151.36 214.28	680.64 540.37 204.17	23.33 48.64 185.83	No. 3. Choate, H.,	76.67	365.64	1,221.01
No. 4. Dana, R.,	119.69 46.51 87.16	112.27 64.54 90.90	425.00 42.50 4.25	No. 4. Dana, R.,	253.36	176.81 90.90	425.00
No. 5. Emerson, W.,	94.23 118.97 254.41	166.67 33.33 200.	98.87 1.13 4.19	No. 5. Emerson, W.,	467.61		400.00
No. 6. Field, W.,	93.22 36.54 126.25	427.84 515.35 484.65	164.46 619.59 95.90	No. 6. Field, W.,	256.01	943.19	484.65
No. 7. Gordon, H.,	2.19 174.26 340.32	97.81 25.74 159.68	166.37 44.51 99.69	No. 7. Gordon, H.,	500.00	200.00	200.00
No. 8. Hillard, S.,	167.74 46.14 217.34	32.26 18.86 282.66	819.36 941.54 250.	No. 8. Hillard, S.,		415.00 350.	1,760.90
No. 9. Jackson, T.,	141.39 47.47 169.92	58.61 52.53 370.08	1,010.01 615.25 130.	No. 9. Jackson, T.,	188.86	169.92 111.14	1,380.09
No. 10. Kimball, B.,	612.25 414.49 371.26	387.25 985.51 138.27	4.50 45. 450.	No. 10. Kimball, B.,	1,026.74	371.26 1,472.76	38.27
Total,				Total,			

TEST LEDGER—PURCHASE SECTION.

Dr.

(Ordinary) Accounts Payable.

Cr.

NAMES.	January.	February.	March.	NAMES.	January.	February.	March.
No. 11. Monroe, J.,	986.25	235.16	216.51	No. 11. Monroe, J.,	986.25 235.16	190.04 26.47	265.10
No. 12. Norton, C.,	1,789.27		219.37	No. 12. Norton, C.,	1,327.78 461.49	219.37	166.84 267.20
No. 13. Otis, James,	1,121.10	105.63	54.39	No. 13. Otis, James,	1,121.10 85.19	20.44 54.39	118.19
No. 14. Parker, T.,		649.70	753.09	No. 14. Parker, T.,	649.70	706.09 47.	56.13
No. 15. Quincy, J.,		983.16	447.65	No. 15. Quincy, J.,	768.16 215.	447.65	169.54
No. 16. Randolph, J.,		1,670.09	344.56	No. 16. Randolph, J.,	1,670.09	344.56 236.78	
No. 17. Sparks, J.,	1,000.00	965.74		No. 17. Sparks, J.,	1,803.24	162.50	18.50
No. 18. Taylor, B.,	500.00	774.67	266.87	No. 18. Taylor, B.,	1,274.67	266.87	49.54
No. 19. Urquhart, W.,		514.29 25.19	141.32	No. 19. Urquhart, W.,	514.29	25.19 141.32	11.27
No. 20. Vaux, F.,	500.00	245.31 300.	47.68 39.04	No. 20. Vaux, F.,	639.04 145.31	347.68	29.42
Total,				Total,			

TEST LEDGER—GENERAL SECTION.

*Dr.**Ordinary Accounts.**Cr.*

NAMES.	January.	February.	March.	NAMES.	January.	February.	March.
No. 21. Cash received,	10,094.54 2,646.72	3,789.00 9,100.84	6,636.58	No. 21. Cash paid.	2,000.00 9,225.	4,468.94 4,194.05	2,530.48
No. 22. Notes receivable received, }	8,454.67 646.17	1,526.74	600.00	No. 22. Notes receivable disposed of, }		9,100.84	
No. 23. Notes payable redeemed, }	9,225.00	3,896.62		No. 23. Notes payable issued, }	9,225.00 3,896.62	2,000.00	
No. 24. Valuation at beginning, at close, }	19,459.87		11,672.98	No. 24. Valuation trans- ferred to mdsc., }	19,459.87		
Totals.				Totals,			

Subordinate Accounts.

NAMES.	January.	February.	March.	NAMES.	January.	February.	March.
No. 25. Mdsc. valuation, Purchases, Bal. prof. to L. & G.	19,459.87 1,142.15	3,236.35	1,151.73 4,446.24	No. 25. Mdsc., Sales, Closing value,	3,142.29	7,425.50	7,195.57 11,672.98
No. 26. Expense, Loss,		297.43		No. 26. Expense, Bal. to L. & G.,			297.43
No. 27. Loss and Gain, Loss, expense, Net g'n to stock %,			297.43 4,148.81	No. 27. Loss and Gain. Gain, mdsc.,			4,446.24
No. 28. Stock,				No. 28. Stock, at beginning, Net gain,	19,703.03		4,148.81
Totals,				Totals,			

LISTS OF BALANCES FROM TEST LEDGER.

<i>Debits.</i>				<i>Credits.</i>			
	Jan. 31.	Feb. 29.	March 31.		Jan. 31.	Feb. 29.	March 31.
1. Agnew, 2. Bartlett, 3. Choate, 4. Dana, 5. Emerson, 6. Field, 7. Gordon, 8. Hillard, 9. Jackson, 10. Kimball,				11. Monroe, 12. Norton, 13. Otis, 14. Parker, 15. Quincy, 16. Randolph, 17. Sparks, 18. Taylor, 19. Urquhart, 20. Vaux,			
Total acc'ts rec.,				Total acct's pay.,			
21. Cash, 22. Notes receiv'ble, 23. Valuation,				23. Notes payable,			
Total assets,				Total debts,			
25. Mdse. 26. Expense,				27. Net gain, 28. Original stock,			
Totals,				Totals,			

CHAPTER XVI.

SECTION 1. — Auxiliary Books.

149. Various books, in addition to those from which postings are made to the Ledger, may be required in actual business, according to its nature. The **Bank Check-book** is commonly a printed form from which checks are cut off, and the account is left on the marginal stub. Notes payable may also be issued from a similar book. **Note Registers** for both inward and outward notes are printed in forms like those on pages 40 and 41. **Weight and Measure blank-books** are arranged in rows and columns of ten, so that items may be added both vertically and horizontally, giving totals and proof for lots of one hundred packages. **Letter-books** are used in which *fac-simile* copies of letters, accounts, statements, etc., are made by means of transfer-ink and copying-press. **Invoices** and **letters received** are placed open and flat, in alphabetical files, and kept clean and secure, while

accessible for reference. A **Memorandum-book** for noting transient occurrences is frequently of value, and may be in the form of a diary, or otherwise. A commission business requires the keeping of a **Commission sales-book**, in which the particulars of receipt, sale, charges, and settlement of each consignment are kept separately in numerical order. A **Package-number book**, each line of which is numbered continuously, is useful in this connection: each package is marked with a number to correspond with its place in the book, where a description of it is written.

SECTION 2. — Consignment Transactions.

150. When Sayward & Dutton deliver the following lot of shoes upon consignment, they would not charge them as a sale, for the goods are still their property, although in Hendry's hands. They would, however, copy the invoice in a Consignment-book, and settle the account when the returns were made for it. Hendry & Co. would also enter the invoice in their Consignment and Case-number books, crediting the goods to Sayward & Dutton as fast as sold, or at stated intervals. The commissions on goods consigned are legally net cash upon the day of sale, and are so computed in averaging the account of sale. If an account of a joint adventure, or a shipment, or consignment is opened on the Ledger, it should be treated in all respects like an Outlay and Return account, which it is in reality, that is, debiting outlays and crediting returns. Consignment entries, except cash items, are made in the Journal.

An Invoice of Shoes consigned for Sale.

Invoice of ten cases of shoes consigned to John S. Hendry & Co., Boston,

To be sold for account of Sayward & Dutton, of Milton, N.H.

1.	60									
2.	60	} = 180 prs. women's en'l'd J. L. hld. $\frac{3}{4}$ boots,	@ 70	126	00					
3.	60									
4.	60									
5.	60	} = 180 prs. misses' goat spring $\frac{1}{2}$ buskins,	" 65	117						
6.	60									
7.	60									
8.	60	} prs. misses' b'd grain J. L. sp'g $\frac{1}{2}$ boots,	" 80	48						
9.	60									
10.	60									
		} = 120 prs. child's buff hld. $\frac{1}{2}$ cacks,	" 38	45	60					
		} prs. women's pol. hld. J. L. $\frac{3}{4}$ boots,	" 72 $\frac{1}{2}$	43	50	380	10			

Freight prepaid.

10 cases, marked
J. S. H. & Co., Boston, }
via B. & M. R R.

Milton, N.H., Nov. 28, 1882.

SAYWARD & DUTTON.

An Account of Sales.

Sales by John S. Hendry & Co., Boston, for account of Sayward & Dutton, Milton, N.H.

1882.									
Dec. 9	10.	60	polished, heeled $\frac{3}{4}$ boots,	@ 75	45	00			
" 15	3.	60	enamelled, " $\frac{3}{4}$ "	" 72 $\frac{1}{2}$	43	50			
" 18	1.	60	} = 120 " " $\frac{3}{4}$ "	" 72	86	40			
	2.	60							
" 21	7.	60	boarded grain " "	" 80	48				
	8.	60	} = 120 child's cacks,	" 38	45	60			
	9.	60							
" 27	4.	60	} = 180 goat $\frac{1}{2}$ buskins,	" 65	117		385	50	
	5.	60							
	6.	60							
			Less charges, commission, and guaranty, 5%,				19	27	
			(On 4 mos.) Balance due S. & D. April 28, '83, by average.				366	23	

E. & O. Ex.

Boston, Dec. 30, 1882.

J. S. HENDRY & Co., by T. Clark.

An Account Current.

Messrs. Sayward & Dutton in account with John S. Hendry & Co. Dr. Cr.

1882.									
Dec. 30			By account sales, average, due April 28, 1883,				366	23	
			DR.						
Nov. 4			To leather, per bill @ 3 months,	129	87				
Dec. 2			" cash advanced,	108	27				
" 30			" discount for cash	6	90				
			" cash to balance (check enclosed),	121	19				
				366	23	366	23		

Boston, Dec. 30, 1882, settled as above.

JOHN S. HENDRY & Co., by T. Clark.

SECTION 3. — A Commission Sales-Book.

Consignment No. 1.

1882.

March 31, Received from GEORGE E. STONE, Dover, Del., for sale,

21 boxes, 2 doz. each, canned tomatoes, "Arrow."

Sold to DUNN & CUTLER.

1882.				1882.					
April 1			To cash advanced,	50	00	May 19	42 doz.	@ 2.75	115 50
			" freight paid,	8	40				
May 19			" 5% commission,	5	77				
			" cash (check sent),	51	33				
				115	50				115 50

Consignment No. 2.

1882.
March 31, Received from TITUS STOWELL, Halifax, Vt., for sale,
4 boxes of maple sugar. Sold as follows, actual weight net:—

1882.	Weights as marked.			1882.				
	129 13 ²			April 2	115 lbs.,	@ .14 ¹	16	67
	58 6 ²				41 "	" .17	6	97
	53 6				47 "	" .18	8	46
	47 6				51 "	" .18	9	18
	287 — 32 = 255 lbs.				254 "			
Mar. 31	To freight paid,	2	50					
April 2	" 5% commission,	2	06					
	" cash (check sent),	36	72					
		41	28				41	28

Consignment No. 3.

1882.
March 31, Received from PHILO HARPER, Waddington, N.Y., for sale,
1 box of eggs, 64 doz. Sold as follows:—

1882.				1882.				
Mar. 31	To freight paid,	1	19	April 3	56 ¹ doz.,	@ .27	15	26
April 3	" 5% commission,	81			7 ¹ " cracked,	" .13 ¹	1	01
	" Cash (check sent),	14	27		64 "			
		16	27				16	27

Consignment No. 4.

1882.
April 27, Received from ELISHA LANMAN, Derby, Vt., for sale,
5 tubs of butter. Sold as follows, actual net weight:—

1882.	Marked Weight.			1882.				
	58 6 ²			Apl. 27	2 tubs, 103 ²	@ .55	56	92
	38 5			" 28	1 " 32 ²	" "	17	87
	32 4			May 1	1 " 47 ²	" "	26	12
	54 ² 7			" 2	1 " 28	" "	15	40
	58 ² 6				211 ² lbs.			
	241 — 28 ² = 212 ² lbs.							
April 27	To freight paid,	2	41					
May 6	" 5% commission,	5	82					
	" cash (check sent),	108	08				116	31
		116	31					

Consignment No. 5.

1882.
April 3, Received from WILLIAM ARNOLD, Monmouth, Me., for sale,
7 bbls. of Baldwin apples. Sold as follows:—

1882.				1882.			
April 3	To freight paid,	3	25	April 6	1 bbl.,	4	50
" 12	" commission 5%	1	47	" 11	4 " @ 4.25	17	
	" cash (check sent),	24	68		2 " 4.	8	
		29	40		7 "	29	40

Consignment No. 6.

1882.
April 28, Received from S. M. HINDS, Eden, Vt., for sale,
16 tubs of butter. Sold as follows, net marked weight:—

1882.	Net Weights as Marked.			1882.			
	34 35 46 30 } 622 ² lbs.			Apl. 30	3 tubs, 100 lbs. @ .38	38	00
	30 ² 35 ² 48 51 } net.			May 1	1 " 32 " " .34	10	88
	41 34 51 32 }			" 5	12 " 490 ² " " .36	176	58
	35 34 48 ² 37 }				16 622 ² lbs.		
April 28	To freight paid,	7	07				
May 6	" 5% commission,	11	27				
	" cash (check sent),	207	12				
		225	46			225	46

The names of the buyers of the goods are often noted against each sale.

CHAPTER XVII.

SECTION 1. — Arrangement of the Ledger.

151. The best mode of arranging the Ledger is to divide it into sections, with separate alphabetical scales for customers and creditors, so that each will form a complete alphabet of itself, as explained under the head of Alphabetical Arrangement. This method is convenient, because those accounts to which it is necessary to turn at the same time in posting, etc., are together in consecutive order. The following division will be found convenient for a LEDGER OF 650 PAGES: *Sales Section*, pages 1 to 400 inclusive, alphabetically; *Purchase Section*, pages 401 to 600 inclusive, alphabetically. Either section can be enlarged or diminished proportionately. The *General Section* should be subdivided as follows: viz., *Cash Account*, pages 601 and 602; *Notes Receivable*, pages 603 to 610 inclusive;

Notes Payable, pages 611 to 618 inclusive (both classes of Note accounts may be advantageously subdivided into *monthly* and *demand* note accounts; this will save labor in looking for an error in them); *Suspense Account*, page 619 (this title is used as a head under which to collect failed accounts, from which partial returns may be expected, but which should not be called good and included in solvent assets. Next will follow the SUBORDINATE ACCOUNTS. *Merchandise*, pages 621 to 630 inclusive; *Expense*, pages 631 to 634 inclusive; *Interest*, pages 635 to 637 inclusive; *Profit and Loss*, pages 638 to 640 inclusive; *Stock* (partners' accounts), pages 641 to 648 inclusive; and *Summary Reports*, being the shortest possible statement of each monthly trial-balance, on the last two pages, 649 and 650. A *geographical arrangement*, that is, by state, county, or town, of the Sales Section may be convenient in some kinds of business.

SECTION 2. — Alphabetical Arrangement of Ledger Sections.

152. The personal accounts in a Ledger can be so classified and arranged that their places may be remembered, making reference thereto easy and convenient. The alphabetical order of surnames is the most natural way; but surnames are not equally numerous in all letters of the alphabet, and while some accounts will occupy only a few lines, others will require a full page, and there will be continual changes made by the opening of new and closing of old accounts. These considerations make it difficult to follow the exact dictionary order of names, with its many divisions of first syllables; and the vowel method, giving six divisions under each letter, is a near enough approximation for use in book-keeping, indices, etc.

The order of names would be somewhat as follows:—

A	E	I	O	U	Y
Blagden	Breck	Brigham	Blood	Burney	Bryant
Bates	Bemis	Bispham	Boardman	Burbeck	Byrnes
Baker	Beecher	Bird	Boynton	Bugbee	Blyden
Babbitt	Beckford	Briggs	Bond	Burke	Bynner

The scale given is for a 600-page section of a Ledger, and it can be multiplied or divided proportionately for larger or smaller sections. In the letter B there would be a space of 44 pages, in six divisions: viz., Ba, 12; Be, 10; Bi, 4; Bo, 10; Bu, 6; By, 2; and so of other letters. The blank space to be left for each account must be governed by the likelihood of frequent or few entries to the account in question. This arrangement is useful in a business having a large number of names, and the only objection is, that it is not so compact and economical of room as when accounts are opened in close succession to each other, leaving no blanks, but

gradually filling up and closing the front of the book. Its convenience in other respects greatly outweighs this objection, however.

SECTION 3. — Alphabetical Vowel Scale for 600 pages of a Ledger.

	A	E	I	O	U	Y
A	page 1	page 8	page 16	page 26	page 32	page 34
B	36	48	58	62	72	78
C	80	104	110	116	140	146
D	148	154	160	164	168	172
E	174	184	192	198	200	200
F	202	206	212	218	228	228
G	230	236	240	244	246	246
H	248	254	258	262	268	270
I	272	274	278	280	280	280
J	282	284	284	286	290	290
K	292	294	298	300	300	300
L	302	306	310	314	318	318
M	320	336	338	342	350	352
N	354	356	360	364	368	368
O	370	372-	376	378	378	378
P	380	394	404	412	418	422
Q	424	424	424	424	424	424
R	426	430	436	440	450	452
S	454	464	480	500	510	510
T	512	520	524	530	544	548
U	550	552	554	554	554	554
V	556	562	562	564	564	564
W	566	572	578	588	592	592
X	594	594	594	594	594	594
Y	594	594	596	596	598	598
Z	599	599	599	599	599	600

SECTION 4. — Miscellaneous or Sundry Accounts.

153. Small charges of one item often occur in business which are so infrequent to the same name as not to require the assignment of a separate ledger page to each; and it is customary to mass them under one head upon the Ledger as "Sundry Accounts." When these items are numerous enough, it is an improvement to separate them alphabetically by the surname, assigning a sufficient number of lines to each letter by the alphabetical scale. Instead of writing the name of the debtor in the centre over the account, it is placed at the left, upon the debit side; and the payment, when credited, is placed at the right, upon the same line, so that the whole history of the transaction, when settled, appears upon one line. If it is likely that entries to one name are to become numerous, that name, with its item, can be transferred to a separate page. The resulting arrangement will be similar to the following; viz., —

Dr.		Sundry Accounts.						Cr.		
A.										
1882.		Page			1882.		Page			
Jan.	2	Ames, Frederick,	1	19	50	Jan. 12	By cash, Ames, F.,	20	19	50
"	3	Archer, William,	5	10	13					
"	4	Adams, C. F.,	6	8	75	Jan. 7	By cash, Adams, C. F.,	11	8	75
B.										
1882.		Page			1882.		Page			
Jan.	2	Blake, J. H.,	2	15	37					
"	5	Bates, J. D.,	7	14	22	Jan. 7	By cash, Bates, J. D.,	11	14	22
"	7	Belcher, Edward,	9	5	25					
C.										
1882.		Page			1882.		Page			
Jan.	4	Clapp, Albion W.,	6	11	24	Jan. 10	By cash, Clapp, A. W.,	18	11	24
"	5	Cobb, C. D., & Bro.,	7	50	42	" 5	" trans. to Cobb & Bro.,	15	50	42
"	7	" H. E., & Co.,	9	39	82	" 10	" cash, Cobb, & Co.,	18	39	82
"	8	" J. H., & Son,	10	42	67					
"	10	" John,	13	8	14	Jan. 15	By cash, Cobb, John,	24	8	14
"	12	" Bates & Yerxa,	15	29	53					
"	15	Curtis, George,	19	15	19					

The time which the accountant devotes to laying out a clear and well-considered plan, reducing details to a convenient system, will increase the general efficiency of his work.

CHAPTER XVIII.

SECTION 1. — Modified Forms of Journal and Cash-Book.

154. Various modifications of the Journal can be made; and it may be so arranged that all debits to the personal accounts, that is, the Sales and Purchase sections of the Ledger, may be made on the left-hand page, and all credits to the same classes of accounts on the right-hand page. Columns are ruled in which the corresponding debits and credits are extended. A column for all other accounts of the General Section not included under the various heads is placed on each side. A column for total amounts is conveniently placed, so that the original entry may be made at first in this column *only*, as, in the haste of transacting business, the clerk might place amounts in the wrong column. He can extend the amounts into the proper columns, and post, from day to day, the items belonging to the Sales, Purchase, and General Section columns alone. The footings of the remaining

columns may be posted monthly. The Cash-book is arranged in a similar manner: the items in the Sales, Purchase, and General section columns only are to be posted daily, and the footings of the remaining columns monthly. The total columns serve to prove the addition of the other columns, prevent the error of placing amounts to the wrong column, and are convenient in balancing cash.

In a large business the work may be advantageously divided. One clerk may keep a Sales-Ledger, in which all the debits will come from the Sales-book, and all the credits from the Cash-book and Journal. Another may keep an Invoice-Ledger, taking all the debits from the Cash-book and Journal, and credits from the Invoice-book. The head clerk or financial partner can keep a small general or private ledger in which, under ten or twelve heads of account, may be comprised all the information required in a general summary of the business. In this private ledger, when the items of all the General Section columns are posted daily, and the footings of all other columns posted monthly, the firm may have a complete exhibit of their condition. The lists of balances from the Sales and Invoice Ledgers may be drawn off monthly, and should agree with the balances shown by the respective summaries of those Ledgers in the General Ledger. In a smaller business the same arrangement could be made all in one book, and the clerk, in making trial-balances, can prove the parts of the Ledger separately and avoid examining the entire set of books for a single error. If many Outlay and Return accounts are kept, the number of heads in the following list will be increased, but these are sufficient for an ordinary merchandise business.

<i>Debits.</i>	<i>Heads of the General Ledger.</i>	<i>Credits.</i>
From Sales-Book.	(totals). SALES LEDGER.	(totals). From Cash-Book.
“ Cash-Book and Journal (occasional).		“ Journal.
From Cash-Book and Journal.	{ (totals). PURCHASE LEDGER. (Occasional), from Cash-Book and Journal.	From Invoice-Book.
Total receipts from Cash-Book.	CASH.	Total disbursements from Cash-Book.
From Journal and Cash-Book.	NOTES RECEIVABLE.	From Cash-Book and Journal.
From Cash-Book.	NOTES PAYABLE.	From Journal.
From Invoice, Cash-Book, and Journal.	{ OUTLAY AND RETURN ACCOUNTS.	{ From Sales-Book, Cash-Book, and Journal.
From Cash-Book and Journal.	{ CAPITAL STOCK, or Partners' Acc'ts.	{ From Cash-Book and Journal.

The forms that follow on pages 150 to 153 should read across the page, but are here placed vertically for want of space.

DR. CASH RECEIVED IN NOVEMBER, 1882.

(Accounts Credited.)

Date.	NAMES.	Total.	Sales Section.	General Section.	Purchase Section.	Mdse.	Notes Rec'd.	Interest.	Miscellaneous.
1	To John Scollay, stock, capital paid in,	1,500		1,500					
7	" James & Fisher, on acc't,	400	400 00						
8	" Gardner & Wylie, "	1,500	1,500						
9	" Hart & Soley, "	451 98	451 98						
10	" Notes receivable, L. Winsor, note paid,	2,500					2,500		
11	" James & Fisher, on acc't,	416 92	416 92						
12	" Tuxbury & Wardner, "	109 55	109 55						
13	" Interest, disc. allowed by G. Griswold,	2 33						2 33	
14	" Farm at Ashby, produce sold,	214 70		214 70					
15	" Notes rec'd, Chase & Loring, note paid,	2,807 54					2,807 54		
16	" " " A. Smalley, "	409 26					409 26		
17	" " " Bond & Co., "	2,609 20					2,609 20		
18	" Interest, disc. all'd by L. Bartlett & Co.,	5 90						5 90	
19	" " " " on Hill's note, b'ght,	7 67						7 67	
30	" Mdse., total cash sales,	3,601 38				3,601 38			
	Cash Dr. total receipts,	16,536 43	2,878 45	1,714 70		3,601 38	8,326	15 90	
	Credits, Sales section,								
	General section,	2,878 45							
	Merchandise,	1,714 70							
	Notes receivable,	3,601 38							
	Interest,	8,326 15 90							
		16,536 43							
1	To balance from Nov. 30,	8,316 64							8,316 64

December, 1882.

(Accounts Debited.) CR.

CASH DISBURSED IN NOVEMBER, 1882.

Date.	Names.	Total.	Purchase Section.	General Section.	Sales Section.	Notes Payable.	Misc.	Expense.	Interest.
1	By Expense, paid for stationery,	6 71							
5	" Misc., allowance,	1 60					1 60	6 71	
7	" Expense, paid express, J. & F.,	25						25	
	" Interest, discount allowed,	2							2
8	" Notes payable, paid note Pennoyer & Co.,	504 51				504 51			2 33
9	" Interest allowed H. & S.,	2 33							2 33
	" Misc., paid for goods at auction-sale,	284 75					284 75		
11	" Expense, paid carrier for daily paper,	2						2	
	" Misc., bill of J. Smith,	27 58					27 58		
12	" Notes payable, paid note Stearns & Co.,	871 49				871 49			
	" George Griswold, on acc't,	209 55	209 55						
	" John Scollay, stock,	100		100					
13	" H. Harris & Co., on acc't,	1316 08	1316 08						
	" Pennoyer & Co.,	1575 95	1575 95						
14	" Farm at Ashby, paid for improvements,	159 33	159 33						
	" Expense, paid S'r "Pequot," freight,	15 09						15 09	
15	" Notes payable, note W. F. Weld & Co.,	1900				1900			
	" L. Bartlett & Co., on acc't,	657 24	657 24						
17	" Notes receivable, paid for R. Hill's note,	490		400					
30	" Expense, paid 1 month's rent,	83 33						83 33	
	" " paid 1 month's clerk hire,	100						100	
	Cash Cr. total payments,	8219 79	3,758 82	659 33		3,276	313 93	297 38	4 33
	Balance to December,	8316 61	3,758 82	3,758 82					
		16536 43	3,276	313 93					
			297 38	4 33					
			8,219 79						

(Accounts Debited.)				(Accounts Credited.)				
Expense.	Mdse.	Notes Recable.	General Section.	NAMES.	Total.	Sales Section.	Purchase Section.	General Section.
			4,142 79	1st. to Sundries. viz., — L. Bartlett & Co., George Griswold, Notes payable, 17th.	657 24 209 55 3,276		657 24 209 55	3,276
		474 66		Notes receivable to Dodge, Cook & Co., 22d.	474 66	474 66		
		251 87		Notes receivable to Beattie & Braine, 23d.	251 87	251 87		
			8 16	Interest to Gardner & Wylie, Notes receivable to Gardner & Wylie, 30th.	8 16 618 91 1,803 77	8 16 618 91		1,803 77
	1,740 05		55 37 8 35	Sundries to Profit and Loss, Merchandise. Farm at Abby. Interest.				
			1,596 39	Profit and Loss to Stock, General section. Notes receivable. Merchandise.	1,596 39 8,896 55			1,596 39
	1,740 05	1,345 44	5,211 06 1,345 44 1,740 05 8,896 55			1,353 60 866 79 6,576 16 8,896 55	866 79	6,576 16

SECTION 2. — Form for keeping Bank Check-Book.

Dr.		First National Bank in account with J. Scollay & Co.				Cr.	
(Daily Balances.)		[Left Face of Stub.]				[Right Face of Stub.]	
		1882. (DEPOSITS.)				1882. (CHECKS.)	
less	1,795.90 1,213.75	To amount brought over,	1,795	90		By amount bro't over,	1,213 75
Apr. 27 add	582.15 759.89	Apr. 27, Treas'y notes, 200. Check, K. & Co., 300.89 " S. A., 259.	759	89		April 27, 1882, Order of L. H. Beattie,	150 87
						No. 494.	
less	1,342.04 150.87						
Apr. 28 less	1,191.17 250.42	Apr. 29. Discount; viz., — Note, H. Gore, 1,050. Less disc't, 10.80	1,039	20		April 28, 1882, Order of Wm. Stocker,	250 42
Apr. 29 add	940.75 1,039.20	Apr. 29, Collection; viz., — Note, W. Dale,	216	50		No. 495.	
less	1,079.95 1,500.						
add	479.95 216.50	Reconciliation.				April 29, 1882, Order of D. L. Braine,	1,500
	696.45	Bal. per check-book, No. 495 not presented,	696.45				
		Bal. per bank-book, May 1, 1882.	946.87				
		Total deposits,	3,811	49		Total checks, Balance to May 1, No. 496.	3,115 04 696 45 3,811 49

Check-books are printed with the right face of the stub and several checks on each leaf. The checks being cut off, the stubs are left with the account on opposite pages. The debit and credit footings should be carried forward for an entire month; when

they are proved by comparison with the bank-book, the *balance* may be carried forward to the next month. The items of daily balances should be kept in the margin.

JOHN SCOLLAY & CO.	\$ <u>150.</u> ⁸⁷ / ₁₀₀	BOSTON, <u>April 27th,</u> 188 <u>9</u>
	FIRST NATIONAL BANK.	
	PAY TO THE ORDER OF <u>L. D. Beattie</u>	
	<u>One hundred and fifty</u> ⁸⁷ / ₁₀₀ DOLLARS.	
	No. <u>494</u>	<u>John Scollay & Co.</u>

JOHN SCOLLAY & CO.	\$ <u>250.</u> ⁴² / ₁₀₀	BOSTON, <u>April 28th,</u> 188 <u>9</u>
	FIRST NATIONAL BANK.	
	PAY TO THE ORDER OF <u>Win. Stocker</u>	
	<u>Two hundred and fifty</u> ⁴² / ₁₀₀ DOLLARS.	
	No. <u>495</u>	<u>John Scollay & Co.</u>

JOHN SCOLLAY & CO.	\$ <u>1500.</u> —	BOSTON, <u>April 29th,</u> 188 <u>9</u>
	FIRST NATIONAL BANK.	
	PAY TO THE ORDER OF <u>O. L. Braine</u>	
	<u>Fifteen hundred</u> [—] / ₁₀₀ DOLLARS.	
	No. <u>496</u>	<u>John Scollay & Co.</u>

The checks paid by the bank are cancelled and returned to the signer on the first of each month. The difference between the bank-book and check-book should be exactly equal to checks issued but not returned.

A check to order, when indorsed, becomes a receipt and evidence of payment on its return from the bank. There are various devices for preventing the alteration of checks, such as chemically prepared paper, a stamp embossing and piercing the written parts, or a system of punching marginal figures corresponding to the amount. The law requiring internal revenue stamps on checks was repealed March 3, 1883.

SECTION 3. — Form for a Pocket Check-Book.

No.	DATE.	NAMES.	DEPOSITED.		WITHDRAWN.		BALANCE IN BANK.	
	1882. June 5	Amounts brought forward,	1,289	14	667	41	621	73
	" 10	Deposited, bills, 519.						
		" checks, 150.67						
		" " 240.18	909	85				
137	" 15	Totals, D. J. Cutter, twenty-one and $\frac{76}{100}$, coal bill,	2,198	99	667	41	1,531	58
		Amounts carried forward,	2,198	99	21	76	1,509	82

No. 137 BOSTON, June 15th, 1882.

NATIONAL REVERE BANK.

PAY TO THE ORDER OF D. J. Cutter

Twenty-one $\frac{76}{100}$ DOLLARS.

\$21 76 William Bradley

The form for the stub is printed on **alternate leaves**, which are folded on the dotted line to face the check, so that the latter may be cut out and leave the stub intact. Both stub and check read the long way of the page, the former being at the top and the latter beneath when the book is open; when closed, it is a small pass-book, suitable for the pocket, and of the shape and size of the single check

only. The form for keeping the account is the same in principle as the second form of Jonas Marshall's account (page 18), with the addition of a third column at the right in which to state balances.

FIRST NATIONAL BANK.

DEPOSITED BY

JOHN SCOLLAY & Co.,

Boston, April 27, 1882.

Specie,		
Treasury Notes,	200	
Nat'l Bank Notes,		
Check, <i>Revere Bk.</i> ,	300	89
<i>" Salem, Mass.</i> ,	250	
	750	89

Merchants make daily deposits in banks of the money and checks received; the items are entered in detail on a deposit ticket, and also on the stub of the check-book. The deposit and ticket are taken to the bank, with a pass-book on which the teller credits the amount to the depositor. The items and footings of ticket and check-book should correspond. Checks must be properly indorsed, and the amounts written in words and figures alike. Careful attention to these details will prevent errors not easy to remedy. Deposits ought to be made in good season, and not at the closing moment of banking hours.

SECTION 4. — Settlement of a Mackerel-Fishing Voyage.

Nickerson & Sons in account with Schooner "General Grant," Owners, and Crew.

1882, Oct. 10.				Schooner's Statement.			
200 bbls. No. 1 mackerel,	@ 16.	3	20	Cost of stores and gear,		133	01
104½ " " 2 " "	" 5.	522	50	Balance paid owners,		100	11
7 " " 2 " (large),	" 6.	42				233	12
40½ " " 3 " "	" 3.	120	37				
10 " " 4 " "	" 2.	20					
12 lbs. " sold,	"	36					
27 " " "	"	81					
		709	24				
Less Expenses.				Crew Statements.			
Packing 162 bbls. @ 1.25	\$202.50			Paid J. E. Lewis, Capt.,	1 share,	16	83
Freight " " .15	24.30			" C. Pinkham and son,	1½ "	25	25
Inspection " " .10	16.20	243		" Gilbert Grant,	1 "	8	42
		466	24	" B. Tibbets,	1 "	8	42
				" Jack Fowles,	1 "	16	83
				" George McLellan,	1 "	16	84
				" E. L. Lewis,	1 "	16	83
				" Hardy McKeon,	1 "	16	84
				" Loring Gray,	1 "	16	83
				" Israel Harrington,	1 "	16	84
				" Samuel Barter,	1 "	16	83
				" Scott Fowles,	1 "	16	84
				" Hartley L. Tibbetts,	1 "	16	83
					12½	210	43
				Crew's expenses,		22	69
						233	12
One-half each to schooner and crew, equals \$233.12							
Less Expenses of Crew.							
Cook's wages,	\$20.00						
Hoisting 162 bbls.,	1.44						
Ballast,	1.25	22.69					
To be divided to the crew,	\$210.43						

The modes of settling fishing-voyages differ in various localities, but are made with the crews in accordance with their shipping articles. These examples are given as showing the manner of arriving at results.

SECTION 5. — Settlement of a Cod-Fishing Voyage.

Nickerson & Sons in account with Schooner "General Grant," Owners, and Crew.

1882.			1882. Owners' Account.		
Sept. 22, 542 ⁸⁷ / ₁₀₀ quintals codfish, deliv'd in Boston, @ 3.32	1,801	94	June 14, Stores,	151	27
154 quintals codfish, delivered in Boston, @ 2,	308		115 hhd. of salt,	201	25
5 quintals codfish sold at home, @ 3.50	17	50	Sundry articles, gear, etc.,	98	42
			J. E. Lewis, draft for cable,	190	94
701 ⁸⁷ / ₁₀₀ quintals, total,	2,127	44		641	88
Less Expenses; viz.,—			45 bbls. clams,		
Freight, 696 ⁸⁷ / ₁₀₀ q't's @ .12 ¹ / ₂ \$87.09			@ \$4.50 \$202.50=101.25		
Wharfage, " " " .02 13.93	101	02	Freight on same, 7. = 3.50		
	2,026	42	1 bbl. clams bought on Bank, 4.25= 2.12	106	87
Less ¹ / ₄ of \$2026.42, curing, \$144.74			One-half each to } \$213.75=106.87	748	75
" expense of selling, 11.	155	74	sch'r and crew, }	237	21
	1,870	68	Balance paid owners Sept. 30,	985	96
Add Oil-Stock; viz.,—					
323 gals. oil-stock, @ .35 \$113.05					
Less Expenses; viz.,—					
9 bbls. @ \$1. \$9.					
Freight to Boston, 9 bbls., 1.80	101	25			
Gauging same, 1. 11.80					
	1,971	93			
One-half of \$1971.93, sch.'s net stock, \$985.96					
One-half of \$1971.93, crew's gross stock, \$985.96					
Less washing 600 quintals, @ .05 \$30.					
" salting on Banks, 5. 35.					
Crew's net stock. \$950.96					

Crew's Account.				
No. Fish.	Caught by	Net Stock. Expense.		
2817	J. E. Lewis,	\$62.73 — 14.47	48	26
4243	Eben Dow,	94.41 14.47	79	94
4719	A. Matthews,	105. 14.47	90	53
3900	Jack Fowles,	86.79 14.47	72	32
3920	Scott Fowles,	87.23 14.47	72	76
3391	Loring Gray,	75.47 14.47	61	
2922	E. L. Lewis,	65.08 14.47	50	61
3965	H. McKeon,	88.26 14.47	73	79
3118	C. Pinkham,	69.43 14.47	54	96
3321	Gilbert Grant,	73.94 14.47	59	47
2996	W. Sproul,	66.71 14.47	52	24
978	H. L. Tibbets,	21.80 8.22	13	58
2424	G. McLellan,	54.11 14.47	39	64
42714	@ .02222	\$950.96—181.86	769	10

Crew's net stock, \$950.96 ÷ 13 = \$73.15, average share; one-half of bait, \$106.87 ÷ 13 = \$8.22, average expense; \$73.15 + \$10 extra, = \$83.15 — \$8.22 = \$74.93, cook's share paid by remaining men; \$74.93 ÷ 12 = \$6.25, average of other men's share for cooking; \$6.25 + \$8.22 = \$14.47, other men's share of expense; the cook's part, retained from the rest of the crew, is paid over to him by the owners. A percentage on the entire net stock of each voyage is paid to the captain by the owners out of their part.

CHAPTER XIX.

SECTION 1. — Interest at Six per cent.

155. The commercial modes of reckoning interest are based upon the assumption that the year is divided into twelve equal months of thirty days each. Although this is not strictly correct, the results obtained are sufficiently accurate for all practical purposes. At six per cent per annum, the interest of \$1 for one year is six cents; for two months, or sixty days (one-sixth of a year), it is one cent, or one-hundredth of one dollar; for six days (one-tenth of sixty days), it is one mill, or one-thousandth of one dollar. Hence, to find the interest for *two months*, point off the two right-hand figures of the dollars as decimals; to find the interest for *six days*, point off the three right-hand figures of the dollars as decimals.

Thus, — The interest of \$2530. for 2 months = \$25.30
 " " " 2530. " 6 days = 2.53
 and " " " 2530. " 2 months and 6 days = \$27.83

Interest by Aliquot Parts. — If time be divided into aliquot parts, proportionate fractions of the principal may be taken for the given time; thus, interest at 6% per annum, for 2 months, or 60 days, is 1% of the principal.

6 days	=	$\frac{1}{10}$	of	1 %	3 months	=	$1\frac{1}{2}$ %	9 months	=	$4\frac{1}{2}$ %
12 "	=	$\frac{1}{5}$	"	1 %	4 "	=	2 %	10 "	=	5 %
15 "	=	$\frac{1}{4}$	"	1 %	5 "	=	$2\frac{1}{2}$ %	11 "	=	$5\frac{1}{2}$ %
18 "	=	$\frac{3}{10}$	"	1 %	6 "	=	3 %	15 "	=	$7\frac{1}{2}$ %
20 "	=	$\frac{1}{5}$	"	1 %	7 "	=	$3\frac{1}{2}$ %	20 "	=	10 %
24 "	=	$\frac{2}{5}$	"	1 %	8 "	=	4 %	25 "	=	$12\frac{1}{2}$ %

This is based on what is called the *two hundred months* method, in which time simple interest will equal the principal.

SECTION 2. — Computation of Interest.

156. Accurate Interest. — The Treasury Department pays accurate interest, based on 365 days in the year. To find true interest: *Count the actual number of days; find one year's interest on the given sum, at the given rate, and take as many 365ths of this interest as there are days in the given term;* thus, required true interest on \$1000, @ 6%, from May 17 to July 19, or 63 days. One year's interest is \$60; \$60 ÷ 365 = 0.16438 + × 63 days = \$10.35594, or \$10.36 true interest. Or *Multiply one year's interest on the given sum, at the given rate, by the actual number of days, and divide the product by 365;* thus, \$60 × 63 = 3780 ÷ 365 = \$10.356164 +, or \$10.36 true interest.

Interest on Daily Balances.—Interest on deposit balances is often paid by bankers; it is computed in the same manner as the Equation of Storage (p. 165). Let that example represent dollars, and the sum of the products (63,500) will be the number of days' interest on one dollar: or, pointing off three figures, it will be 63.5 days' interest on \$1000. As \$1000 gains \$1 of interest in 6 days, we divide by 6, and $63.5 \text{ days} \div 6 = \$10.58\frac{1}{3}$ interest to Feb. 20.

Or by dividing total products by 30 ($63,500 \div 30 = 2116\frac{2}{3}$), the quotient will be the number of months' interest on one dollar, or, by transposition, the number of dollars bearing interest for one month; thus, $\frac{1}{2}\%$ on $\$2116.67 = \$10.58\frac{1}{3}$ interest to Feb. 20.

SECTION 3. — Interest at Various Rates.

157.—Interest at various rates may first be computed at $6\frac{1}{2}\%$ per annum, and aliquot parts of itself added or subtracted in the ratio of the given rate.

For 10 %	add	$\frac{1}{2}$.	For 5 %	subtract	$\frac{1}{4}$.
" 9 %	"	$\frac{1}{3}$.	" $4\frac{1}{2}\%$	"	$\frac{1}{6}$.
" 8 %	"	$\frac{1}{4}$.	" 4 %	"	$\frac{1}{5}$.
" $7\frac{1}{2}\%$	"	$\frac{1}{5}$.	" 3 %	"	$\frac{1}{3}$.
" 7 %	"	$\frac{1}{6}$.	" 2 %	"	$\frac{1}{5}$.

The interest of \$100 at $7\frac{3}{10}\%$ per cent per annum is two cents per day.

SECTION 4. — Percentage.

158. To find the percentage of gain or loss upon any thing the cost of which is known, divide the amount returned by the cost, subtract 100 from the quotient, and the remainder will be the percentage of gain or loss: thus, cost, \$6, return, \$10, required percentage of gain. $10 \div 6 = 1.66\frac{2}{3}$; $166\frac{2}{3} - 100 = 66\frac{2}{3}$ per cent profit. Or divide the difference between cost and return by the cost, and the quotient will be the percentage required; thus, $10 - 6 = 4$; $4 \div 6 = .66\frac{2}{3}$. *Ans.*, $66\frac{2}{3}\%$.

SECTION 5. — The Value of Legal Tender Currency, or Premium upon Gold.

159. When tea is worth \$1.25 per lb., how many lbs. can be bought for \$100.? Thus, $\$100. \div \$1.25 = 80$; and so one dollar is worth $\frac{80}{100}$ lbs. of tea. When gold is worth \$1.25 currency, how many gold dollars can be bought for \$100 in currency? Thus, $\$100. \div \$1.25 = 80$; and so a paper dollar is worth 80 cents in gold. The two questions are parallel, and need no explanation. Hence, to find the gold value of currency, divide 100 by the currency value of gold.

If $\frac{3}{4}$ lb. of tea is worth \$1, what is 100 lbs. of tea worth? Thus, $100 \div .75 =$

133.33 $\frac{1}{3}$; that is, one lb. of tea is worth \$1.33 $\frac{1}{3}$. If currency is worth 75 cents gold, what is the gold worth in currency? Thus, $100 \div .75 = 133.33\frac{1}{3}$, and gold is said to be at 33 $\frac{1}{3}$ per cent premium. Hence, to find the currency value of gold, divide 100 by the gold value of currency.

SECTION 6. — Equation of Payments, or Averaging Accounts.

160. The object of averaging an account is to find a date upon which the interest on each side will be equal; that is, when no interest will be due to or from either party.

Interest may be reckoned to any date, and the latest due date among the items is as convenient as any. Interest on each item on both sides of an account should be computed to the same date. If the fraction of a day is less than one-half, reject it; if more than one-half, call it one day. When bills are all on the same term of credit, they may be averaged from their dates.

1. — SIMPLE EQUATION.

When an account has items on but one side: *Find the interest at 6% on each item from its date of maturity to the latest due date among the items. Multiply the sum of the interest, expressed in cents, by sixty and divide the product by the sum of the items in dollars. The quotient will be the number of days previous to the computing date when no interest will be due.*

Messrs. Parker & Williams			To		Howe & Badger,	Dr.	
Date.	Article.	Credit.	Amount.		When due.	Time.	Interest.
1882.					1882.		
Jan. 1	To merchandise,	6 months,	240	00	July 1		
" 19	" "	4 "	800		May 19	1 m. 11 d.	5 88
" 27	" "	3 "	940		April 27	2 3	9 87
Feb. 9	" "	Net,	125	67	Feb. 9	4 21	2 96
" 24	" "	2 months,	476	24	April 24	2 6	5 23
			2,641	91			23 94

$\$23.94 \times 60 = 143,640 \div \$2,642 = 54$ days, or 1 month 24 days before July 1, or May 6.

(Or divide the ascertained interest by one day's interest on the sum of the account; thus, $\$2.642 \div 6 = \0.44 ; $\$23.94 \div \$0.44 = 54$ days. The quotient is the number of days required for the total sum to gain the interest. Count the time *back* from the date to which interest is reckoned. Interest may be conveniently reckoned at 12% in averaging accounts.

Dr. *The Proof of foregoing Example, Interest to May 6, 1882.* *Cr.*

Due.	Amount.	Time.	Interest.		Due.	Amount.	Time.	Interest.	
1882.					1882.				
Feb. 9	\$126.	2 m. 27 d.	1	80	May 19	\$860.	13½ d.	1	93
April 24	478.	12		94	July 1	240.	1 m. 25	2	22
" 27	940.	9	1	41					
			4	15				4	15

Analysis. — As one dollar gains one cent of interest in sixty days, it will gain \$23.94 interest in 143,640 days, and \$2642. will gain it in $54\frac{1}{2}$ days. It gains it on July 1; therefore 54 days previous, or May 6, no interest would be due.

2. — COMPOUND EQUATION.

When an account has items on each side: *Find the interest on each item from its date of maturity to the latest date of maturity of any item on either side, setting down the debit and credit sides separately. Subtract the lesser side of interest from the greater, and multiply the balance of interest, expressed in cents, by sixty. Divide the product by the balance of the account in dollars.*

If the balance of interest and the balance of account are both on the *same* side, the quotient will be the number of days *previous* to the computing date when no interest will be due. If the balance of interest and the balance of account are on *opposite* sides to each other, the quotient will be the number of days *subsequent* to the computing date when no interest will be due.

Dr. *Messrs. Randall & Carruth,* *in account with* *Whittier & Sweetser,* *Cr.*

1882.	Time.	Interest.		Amount.	1882.	Time.	Interest.		Amount.
April 4	5 m. 18 d.	3	97	142 00	April 19	5 m. 3 d.	1	27	50 00
July 9	2 13	2	15	176 68	July 15	2 7		56	50
Sept. 22				189 24	Sept. 16	6		15	150
		6	12	507 92			1	98	250 00
ACCOUNT.					INTEREST.				
Debit,		\$507.92			Debit,		\$6.12		
Credit,		250.			Credit,		1.98		
Dr. balance,		\$257.92			Dr. balance,		\$4.14		

$\$4.14 \times 60 = 24,840 \div \$258 = 96$ days, or 3 months and 6 days previous to Sept. 22, or June 16; or $\$0.258 \div 6 = \0.043 ; $\$4.14 \div \$0.043 = 96$ days.

NOTE. — Interest is not reckoned upon cents; if less than 50, reject them; if more, call them one dollar.

SECTION 7. — Forms of Statements and Exercises in Average.

Worcester, July 1, 1882.

Messrs. Thomas Taylor & Co.,		To	Freeland & Richardson,	Dr.	
1882.					
Jan. 20	To merchandise, per bill rendered,	@ 4 months,	386	90	
Feb. 4	" " " "	6 "	375	50	
Mar. 11	" " " "	8 "	386	25	
April 7	" " " "	Net,	168	75	1,317 40
		Cr.			
April 24	By cash,		200	00	
May 19	" note of March 17,	@ 6 months,	476	54	676 54
					640 86

Boston, Sept. 1, 1882.

Fitchburg Duck Mill,		To	George Blackburn & Co.,	Dr.	
1882.					
Aug. 9	To cotton, per invoice rendered,	Net cash,	950	37	
" 13	" " " "	"	1,276	40	
" 15	" " " "	"	1,934	80	
" 27	" " " "	"	569	73	4,731 30

SECTION 8. — Equation by Products.

161. An account may be averaged by products in several ways; viz., — Set down the items in the order of maturity; select the earliest or latest date as the point of computation; multiply each item by the time, in days, between its own date and that of the computing point; divide the sum of the products by the sum of the items, in dollars; the quotient will be the time, in days, between the point of computation and the average date of maturity. If the computing point be the *earliest* date, the quotient is to be counted *forward* from it; if it be the *latest* date, the quotient is to be counted *backward* from it. If units of dollars be cut off (the tens remaining the same) the result will be the same.

No. 1. — Time from March 14.		No. 2. — Time to June 12.		No. 3. — Time to June 12.	
Mar. 14, \$80		Mar. 14, \$80 × 90 = 7200		Mar. 14, \$80 × 10 = 800	
" 24, 120 × 10 = 1200		" 24, 120 × 80 = 9600		" 24, 120 200 × 25 = 5000	
Apr. 18, 180 × 35 = 6300		Apr. 18, 180 × 55 = 9900		Apr. 18, 180 380 × 9 = 3420	
" 27, 50 × 44 = 2200		" 27, 50 × 46 = 2300		" 27, 50 430 × 23 = 9890	
May 20, 230 × 67 = 15410		May 20, 230 × 23 = 5290		My. 20, 230 660 × 16 = 10560	
June 5, 300 × 83 = 24900		June 5, 300 × 7 = 2100		Je. 5, 300 960 × 7 = 6720	
" 12, 150 × 90 = 13500		" 12, 150		" 12, 150	
\$1110) 63510 (57+		\$1110) 36390 (33-		\$1110) 36390 (33-	
Ans., 57 days after March 14, or May 10.		Ans., 33 days before June 12, or May 10.		Ans., 33 days before June 12, or May 10.	

In the third example the time is reckoned on the first item from its date to that of the second item; the first and second items are added together, and multiplied by the time from the date of the second to that of the third item; and so on to the date of the last item, which is the computing point.

The interest due on June 12 may be found in the second and third examples by dividing the total product by 6, pointing off three figures as decimals; thus, $36390 \div 6 = \$6.065$. Interest of \$1110. for one day equals $\$1.110 \div 6 = \0.185 ; $\$6.065 \div \$0.185 = 33$ days, nearly. As the actual number of days is counted, this interest varies a little from that by calendar months.

In a *compound* equation by products: Compute the time to the latest date of maturity on either side of the account; divide the *balance* of products by the *balance* of the account, in dollars. If the balances of account and products are on the *same* side, count the quotient *backward*; if on *opposite* sides to each other, count it *forward* from the computing date.

No. 1.											
Dr.				Time to August 25.				Cr.			
Aug. 18,	\$188	×	7	=	1316	Aug. 1,	\$200	×	24	=	4800
“ 20,	475	×	5	=	2375	“ 8,	100	×	17	=	1700
“ 25,	123					“ 25,	200				
	\$786				3691		\$500				6500
	500										3691
Dr. balance	\$286	account.							Cr. balance	2809	products.

$2809 \div \$286 = 10$ days, nearly, *after* Aug. 25, or Sept. 4. $2809 \div 6 = \$0.4681$, *credit* interest on Aug. 25. $\$0.286 \div 6 = \0.0476 , interest of \$286 for one day. $\$0.468 \div \$0.047 = 10$ days, nearly, *after* Aug. 25, or Sept. 4.

No. 2.																	
Dr.								Time to August 30.								Cr.	
Aug. 1,	\$179	or	18	×	29	=	522	Aug. 7,	\$211	or	21	×	23	=	483		
" 9,	87	or	9	×	21	=	189	" 14,	27	or	3	×	16	=	48		
" 19,	112	or	11	×	11	=	121	" 21,	53	or	5	×	9	=	45		
" 23,	268	or	27	×	7	=	189	" 24,	39	or	4	×	6	=	24		
" 30,	91	or	9					" 30,	117	or	12						
	\$737	or	74			1021			\$447	or	45				600		
	447		45			600											

nearly, *before* Aug. 30, or Aug. 16. $4210 \div 6 = \$0.701$ *debit* interest on Aug. 30. $\$0.290 \div 6 = \0.0483 , one day's interest on \$290. $\$0.701 \div \$0.0483 = 14\frac{1}{2}$ days, nearly, *before* Aug. 30, or Aug. 15. The foregoing is shortened by omitting units of dollars and substituting equivalent tens of dollars.

SECTION 9. — Equation of Storage.

162. The custom in the various cities relating to the receipt, storage and delivery of goods in storage-warehouses, elevators, etc., is regulated by the Boards of Trade. The charge is commonly a certain rate per barrel, bushel, etc., per month or for any part of a month. On grain in elevators, the charge is the same for ten days or for any part of ten days. When receipts and deliveries are made at irregular intervals, the time may be determined by average, if agreed upon.

Multiply the quantities remaining in store by the time, in days, during which they remain unchanged. The sum of all the products will be the number of days' storage on one article; when divided by 30 it will be the number of months' storage on one article; or, in other words, by transposition, it will be the number of articles stored for one month. Thus, required the storage on barrels of flour; viz., —

1882.	Receipt.	Delivery.	In Store.	Days.	Product.
Jan. 2	2,000		2,000	10	20,000
" 12		500	1,500	7	10,500
" 19		500	1,000	4	4,000
" 23	800		1,800	5	9,000
" 28		1,000	800	10	8,000
Feb. 8	800		1,600	5	8,000
" 13		800	800	3	2,400
" 16		400	400	4	1,600
" 20		400			
	3,600	3,600			30) 63,500 days.
					<u>2,116$\frac{2}{3}$ mos.</u>

Or 2,116 $\frac{2}{3}$ barrels for one month, @ 3 cents per month = \$63.50.

SECTION 10. — Aliquot Parts.

163. Many compound problems may be reckoned by assuming a price at a higher denomination, and taking fractions of it for the sum required; thus, required cost of 85 $\frac{1}{2}$ lbs. of cassia at 31 $\frac{1}{4}$ cts. per pound. At \$1 per lb. 85 $\frac{1}{2}$ lbs. cost \$85.50;

At 25 cents	= $\frac{1}{4}$ of \$1	per lb.	85 $\frac{1}{2}$ lbs. cost	\$21.37 $\frac{1}{2}$
At 06 $\frac{1}{4}$ "	= $\frac{1}{4}$ of 25 cents	"	85 $\frac{1}{2}$ lbs. "	<u>5.34$\frac{3}{8}$</u>
At 31 $\frac{1}{4}$ cents		per lb.	85 $\frac{1}{2}$ lbs. cost	\$26.71 $\frac{1}{8}$ Ans.

Again: Required the cost of 11 cwt. 2 qrs. 21 lbs. of currants at 12s. 6d. per cwt.

2 qrs. 21 lbs. = $\frac{1}{4}$ cwt., and 11 $\frac{1}{4}$ cwt.	@ £1 = £11.6875 = £11.13.9
12s. 6d. = $\frac{1}{4}$ £, and $\frac{1}{4}$ of £11.13.9	= £5.16.10 $\frac{1}{2}$
$\frac{1}{4}$ of 5.16.10 $\frac{1}{2}$	= <u>1.9.2$\frac{1}{2}$</u>
and $\frac{1}{4}$ of 11.13.9	= £7.6.1 $\frac{1}{8}$ Ans.

TABLE OF ALIQUOT PARTS.

TABLE OF ALIQUOT PARTS.

Frac- tions.	Of a Dollar.	Of a Year.	Of a £ sterling.	Of a Shilling.	Of a Short Ton. (2000 lbs.)	Of a Long Ton. (2240 lbs.)	Of a Long Cwt. (112 lbs.)
$\frac{1}{84}$ is	.01 $\frac{1}{8}$ cts.	5 $\frac{1}{2}$ days.	3 $\frac{1}{2}$ d.	$\frac{1}{16}$ d.	31 $\frac{1}{2}$ lbs.	35 lbs.	1 $\frac{1}{2}$ lbs.
$\frac{1}{32}$	.03 $\frac{1}{8}$	11 $\frac{1}{2}$ "	7 $\frac{1}{2}$ d.	$\frac{1}{8}$ d.	62 $\frac{1}{2}$ "	70 "	3 $\frac{1}{2}$ "
$\frac{1}{16}$	.06 $\frac{1}{4}$	22 $\frac{1}{2}$ "	1s. 3d.	$\frac{1}{4}$ d.	125 "	140 "	7 "
$\frac{1}{8}$	.12 $\frac{1}{2}$	1 mo. 15 "	2s. 6d.	1 $\frac{1}{2}$ d.	250 "	280 "	14 "
$\frac{1}{4}$	.18 $\frac{3}{4}$	2 mos. 7 $\frac{1}{2}$ "	3s. 9d.	2 $\frac{1}{2}$ d.	375 "	420 "	21 "
$\frac{1}{2}$	.25	3 "	5s.	3d.	500 "	560 "	28 "
$\frac{3}{4}$	.31 $\frac{1}{4}$	3 " 22 $\frac{1}{2}$ "	6s. 3d.	3 $\frac{1}{2}$ d.	625 "	700 "	35 "
$\frac{7}{8}$	.37 $\frac{1}{2}$	4 " 15 "	7s. 6d.	4 $\frac{1}{2}$ d.	750 "	840 "	42 "
$\frac{1}{16}$	.43 $\frac{3}{4}$	5 " 7 $\frac{1}{2}$ "	8s. 9d.	5 $\frac{1}{2}$ d.	875 "	980 "	49 "
$\frac{1}{8}$	.50	6 "	10s.	6d.	1000 "	1120 "	56 "
$\frac{1}{4}$	.56 $\frac{1}{4}$	6 " 22 $\frac{1}{2}$ "	11s. 3d.	6 $\frac{3}{4}$ d.	1125 "	1260 "	63 "
$\frac{1}{2}$	.62 $\frac{1}{2}$	7 " 15 "	12s. 6d.	7 $\frac{1}{2}$ d.	1250 "	1400 "	70 "
$\frac{3}{4}$	.68 $\frac{3}{4}$	8 " 7 $\frac{1}{2}$ "	13s. 9d.	8 $\frac{1}{2}$ d.	1375 "	1540 "	77 "
$\frac{7}{8}$	.75	9 "	15s.	9d.	1500 "	1680 "	84 "
$\frac{1}{16}$	.81 $\frac{1}{4}$	9 " 22 $\frac{1}{2}$ "	16s. 3d.	9 $\frac{3}{4}$ d.	1625 "	1820 "	91 "
$\frac{1}{8}$	.87 $\frac{1}{2}$	10 " 15 "	17s. 6d.	10 $\frac{1}{2}$ d.	1750 "	1960 "	98 "
$\frac{1}{4}$	.93 $\frac{3}{4}$	11 " 7 $\frac{1}{2}$ "	18s. 9d.	11 $\frac{1}{2}$ d.	1875 "	2100 "	105 "
$\frac{1}{20}$ is	.01 $\frac{1}{5}$ cts.	4 $\frac{1}{2}$ days.	3d.	$\frac{1}{20}$ d.	25 lbs.	28 lbs.	1 $\frac{1}{2}$ lbs.
$\frac{1}{10}$	.02 $\frac{1}{5}$	9 "	6d.	$\frac{1}{10}$ d.	50 "	56 "	2 $\frac{1}{2}$ "
$\frac{1}{5}$	.05	18 "	1s.	$\frac{1}{5}$ d.	100 "	112 "	5 $\frac{1}{2}$ "
$\frac{1}{4}$	.10	1 mo. 6 "	2s.	1 $\frac{1}{4}$ d.	200 "	224 "	11 $\frac{1}{2}$ "
$\frac{1}{2}$	.20	2 mos. 12 "	4s.	2 $\frac{1}{2}$ d.	400 "	448 "	22 $\frac{1}{2}$ "
$\frac{3}{4}$	.30	4 " 24 "	6s.	3 $\frac{1}{2}$ d.	600 "	672 "	33 $\frac{1}{2}$ "
$\frac{1}{2}$	.40	4 " 24 "	8s.	4 $\frac{1}{2}$ d.	800 "	896 "	44 $\frac{1}{2}$ "
$\frac{3}{4}$	.60	7 " 6 "	12s.	7 $\frac{1}{2}$ d.	1200 "	1344 "	67 $\frac{1}{2}$ "
$\frac{1}{2}$	.80	9 " 18 "	16s.	9 $\frac{1}{2}$ d.	1600 "	1792 "	89 $\frac{1}{2}$ "
$\frac{1}{48}$ is	.02 $\frac{1}{12}$ cts.	7 $\frac{1}{2}$ days.	5d.	$\frac{1}{48}$ d.	Fractions.		
$\frac{1}{36}$	.02 $\frac{1}{9}$	10 "	6 $\frac{1}{2}$ d.	$\frac{1}{36}$ d.			
$\frac{1}{24}$	.04 $\frac{1}{6}$	15 "	10d.	$\frac{1}{24}$ d.			
$\frac{1}{18}$	.05 $\frac{1}{6}$	20 "	1s. 1 $\frac{1}{2}$ d.	$\frac{1}{18}$ d.			
$\frac{1}{12}$	.08 $\frac{1}{3}$	1 mo.	1s. 8d.	1d.	$\frac{1}{12}$ is	40 lbs.	2 lbs.
$\frac{1}{6}$	.11 $\frac{1}{2}$	1 " 10 "	2s. 2 $\frac{1}{2}$ d.	1 $\frac{1}{2}$ d.	$\frac{1}{6}$	80 "	4 "
$\frac{1}{4}$	.16 $\frac{2}{3}$	2 mos.	3s. 4d.	2d.	$\frac{1}{4}$	160 "	8 "
$\frac{1}{3}$	.33 $\frac{1}{3}$	4 "	6s. 8d.	4d.	$\frac{1}{3}$	320 "	16 "
$\frac{1}{2}$	.41 $\frac{2}{3}$	5 "	8s. 4d.	5d.	$\frac{1}{2}$	640 "	32 "
$\frac{2}{3}$	.58 $\frac{1}{3}$	7 "	11s. 8d.	7d.	$\frac{2}{3}$	960 "	48 "
$\frac{1}{3}$	.66 $\frac{2}{3}$	8 "	13s. 4d.	8d.	$\frac{1}{3}$	1280 "	64 "
$\frac{5}{6}$	.83 $\frac{1}{6}$	10 "	16s. 8d.	10d.	$\frac{5}{6}$	1600 "	80 "
$\frac{1}{2}$	.91 $\frac{1}{2}$	11 "	18s. 4d.	11d.	$\frac{1}{2}$	1920 "	96 "

SECTION 11. — Table of Transposed Numbers.

DIFFERENCES.

9	{	10	21	32	43	54	65	76	87	98	The transposition of figures is a frequent cause of errors in proving accounts and balance-sheets. This table is founded on the fact that all differences between transposed numbers are multiples of nine. The difference between the figures misplaced is equal to the quotient of the resulting error when divided by nine; thus, $91 - 19 = 72$; $72 \div 9 = 8$; $9 - 1 = 8$, and the labor of searching for it may be confined to examining those figures the transposition of which would make the difference, as they are the only ones which can cause the error. Thus: if the error in a balance-sheet be 81 cents, it is possibly caused by a transposition, and the clerk can first examine the cents columns of his books for items of 90 cents, or 09 cents, alone, with a strong probability of finding the cause of the error without further revision. Transpositions may occur in any decimal or integers place, and the differences caused thereby are divisible by nine without remainder; but, beyond this table, the numbers ascend in regular progression, each difference increasing by nine, as follows:
		01	12	23	34	45	56	67	78	89	
18	{	20	31	42	53	64	75	86	97		
		02	13	24	35	46	57	68	79		
27	{	30	41	52	63	74	85	96			
		03	14	25	36	47	58	69			
36	{	40	51	62	73	84	95				
		04	15	26	37	48	59				
45	{	50	61	72	83	94					
		05	16	27	38	49					
54	{	60	71	82	93						
		06	17	28	39						
63	{	70	81	92							
		07	18	29							
72	{	80	91								
		08	19								
81	{	90									
		09									
90	{	100									
		010	108	{ 120	{ 130	{ 140					
				{ 12; 117	{ 13; 126	{ 14; etc.					
99	{	100									
		001									

difference in a regular progression, when divided by nine, gives the figures transposed, thus: $130 - 13 = 117 \div 9 = 13$, which are the figures to be sought for when a discrepancy of 117 is shown; but this will not apply to differences below 81, nor to mixed transpositions. An error divisible by two may be caused by posting an item to the wrong side of a ledger.

CHAPTER XX.

SECTION 1.—The Metric System of Weights and Measures.

164. The idea of the metric system originated in 1790 with Prince Talleyrand, who suggested the length of a pendulum beating seconds of time in a latitude of 45° as the standard. The plan was matured by Laplace and other eminent French mathematicians, who adopted as the standard meter the ten-millionth part of the distance from the equator to the pole over the earth's surface. Standards of length and weight, made of platinum with the utmost precision, were adopted in France in 1801, where the use of old systems was forbidden by law in 1840. The metric system is now lawful in twenty-seven nations, in eighteen of which other systems are prohibited. It was adopted by the German empire soon after the war with France in 1870, and was legalized in the United States by act of Congress, July 26, 1866. The original measure of an arc of the meridian, from Dunkirk to Barcelona, was made with great care by trigonometrical survey during seven years after 1793. Its accuracy has been doubted upon the ground that the distance is comparatively short to the whole quadrant, and the earth is not proven to be a regular elliptical spheroid. An international commission representing the countries adopting the system met at Paris in 1874, and decided that the prototype standards there preserved should be recognized and perpetuated forever as true bases, without regard to doubtful questions as to their theoretic values. The metric standards of other countries are accurate duplicates of those at Paris, and the ordinary meter-sticks are copies. The word meter means measure, and the basis of the system is a platinum bar preserved at Paris, measured when at the freezing point of 0° Cent., or 32° Fah.

NOMENCLATURE.

Units.		Prefixes.	
METER	is the unit of length.	MILLI	means one-thousandth of.
AR*	" " surface.	CENTI	" one-hundredth of.
STER*	" " solidity.	DECI*	" one-tenth of.
LITER*	" " capacity.	DEKA	" tenfold.
GRAM	" " weight.	HEKTO	" one hundred fold.
		KILO	" one thousand fold.
		MYRIA	" ten thousand fold.

* Severally pronounced *air*, *stair*, *leeter*, *desi*.

SECTION 2. — Linear, or Long Measure.

165. The unit of linear measure is the **meter**. The Kilometer, and the meter with its subdivisions, are the units commonly used.

One-thousandth of a meter,	or	.001 m.	=	One millimeter (mm.).
One-hundredth of a meter,	or	.01 m.	=	One centimeter (cm.).
One-tenth of a meter,	or	.1 m.	=	One decimeter (dm.).
ONE METER,	or	1. m.	=	ONE METER (m.).
Ten meters,	or	10. m.	=	One dekameter (Dm.).
One hundred meters,	or	100. m.	=	One hektometer (Hm.).
One thousand meters,	or	1,000. m.	=	One kilometer (Km.).
Ten thousand meters,	or	10,000. m.	=	One myriameter (Mm.).

Lengths may be expressed in units of meters or other denominations by properly placing the decimal point and writing the abbreviation appropriate to it; thus, 1.419 meters may be written 1.419 m., or 14.19 dm., or 141.9 cm., or 1419 mm. Long distances are stated in kilometers; thus, 8597 meters would be written 8.597 Km.

ONE DECIMETER.



SECTION 3. — Area, or Square Measure.

166. The unit of square measure is a **square** one side of which is a unit of linear measure; thus, a square meter is a square having each side ten decimeters, or one meter long, and therefore containing 100 square decimeters. As the units of square measure increase by a scale of hundreds, each denomination occupies two decimal places; thus, 37 sq. m., 4 sq. dm., 9 sq. cm., and 7 sq. mm. are written 37.040907.

One-millionth of a square meter,	or	.000001 sq. m.	=	1 square millimeter (sq. mm.).
100 sq. mm., or one ten-thousandth of a square meter,	or }	.0001 sq. m.	=	1 square centimeter (sq. cm.).
100 sq. cm., or one-hundredth of a sq. meter,	or	.01 sq. m.	=	1 square decimeter (sq. dm.).
100 sq. dm., or ONE SQUARE METER,	or	1. sq. m.	=	1 SQUARE METER (sq. m.).
100 sq. m., or one hundred square meters,	or	100. sq. m.	=	1 square dekameter (sq. Dm.).
100 sq. Dm., or ten thousand square meters,	or	10,000. sq. m.	=	1 square hektometer (sq. Hm.).
100 sq. Hm., or one million square meters,	or	1,000,000. sq. m.	=	1 square kilometer (sq. Km.).

SECTION 4. — Land Measure.

167. In measuring land the square meter is called the **centar**. Units of land measure occupy two decimal places, and 3 Ha., 7 A., 5 ca. are written 307.05 A.

	100 square decimeters	=	1 square meter	=	1 centar (ca.).
100 centars, or	100 square meters	=	1 square dekameter	=	1 AR (a.).
100 ars, or	100 square dekameters	=	1 square hektometer	=	1 hektar (Ha.).

SECTION 5. — Volume, or Cubic Measure.

168. The unit of volume is a **cube** one edge of which is a unit of linear measure ; thus, a cubic meter is a cube each of whose edges is ten decimeters or one meter long, and therefore containing one thousand cubic decimeters or one cubic meter.

One-billionth of a cubic meter, or	.000000001 cu. m.	=	1 cubic millimeter (cu. mm.).
One-millionth of a cubic meter, or	.000001 cu. m.	=	1 cubic centimeter (cu. cm.).
One-thousandth of a cubic meter, or	.001 cu. m.	=	1 cubic decimeter (cu. dm.).
One billion cubic millimeters, or 1,000,000,000.	cu. mm. or	} = 1 CUBIC METER (cu. m.).	
One million cubic centimeters, or 1,000,000.	cu. cm. or		
One thousand cubic decimeters, or 1,000.	cu. dm.		
1,000 cubic millimeters (cu. mm.)	=	1 cubic centimeter (cu. cm.).	
1,000 cubic centimeters	=	1 cubic decimeter (cu. dm.)	= 1 LITER.
1,000 cubic decimeters	=	1 cubic meter (cu. m.)	= 1 STER.

As cubic units increase by a scale of thousands, three decimal places are required for each denomination ; and 319 cu.m. 7 cu.dm. 9 cu.cm. 11 cu.mm. would be written 319.007009011 cu. m.

SECTION 6. — Wood Measure.

169. The unit of liquid and dry measure is the cubic decimeter, called the **liter**; and in measuring wood, coal, and stone, the **kiloliter** is called the **ster**, meaning solidity : a pile of firewood one meter each way, or one cubic meter, equals one ster ; **10 decisters (ds.) = 1 ster (s.) ; 10 sters = 1 dekaster (Ds.)**. As wood measure increases by a scale of tens, but one decimal place is required for each denomination ; thus, 6 Ds. 9 s. 2 ds. are written 69.2 sters.

As the names of cubic millimeters, cubic centimeters, and cubic decimeters are long and inconvenient, it is suggested that the names **bilster**, **millilster**, and **milster** be substituted for them respectively. **Ster** means solidity, and is the root of the words **stereotype**, **stereoscope**, etc. ; and **bilster** would mean a solid billionth, **millilster** a solid millionth, and **milster** a solid thousandth of a ster.

SECTION 7. — Capacity, or Liquid and Dry Measure.

170. The unit for measuring grain, fluids, etc., is the **liter**, which is equal to one cubic decimeter of distilled water at its greatest density, or in a temperature of 4° C. = 39.2 Fah., weighing one Kilogram.

				Cubic Contents.	Weight of Water.
One-thousandth of a liter, or	.001 l.	=	1 milliliter (ml.)	=	1 cu. cm. = 1 gram.
One-hundredth of a liter, or	.01 l.	=	1 centiliter (cl.)	=	10 cu. cm. = 1 dekagram.
One-tenth of a liter, or	.1 l.	=	1 deciliter (dl.)	=	100 cu. cm. = 1 hektogram.
ONE LITER,	or 1. l.	=	1 LITER (l.)	=	1 cu. dm. = 1 Kilogram.
Ten liters,	or 10. l.	=	1 dekaliter (Dl.)	=	10 cu. dm. = 1 Myriagram.
One hundred liters,	or 100. l.	=	1 hektoliter (Hl.)	=	100 cu. dm. = 1 Quintal.
One thousand liters,	or 1,000. l.	=	1 kiloliter (Kl.)	=	1 cu. m. = 1 Metric Ton.

The following sizes of measures are used ; the figures against each denote its ratio to the liter : —

$\frac{1}{100}$ — Centiliter.	$\frac{1}{2}$ — Demi-Liter.	5 — Demi-Dekaliter.
$\frac{1}{50}$ — Double Centiliter.	1 — LITER.	10 — Dekaliter.
$\frac{1}{20}$ — Demi-Deciliter.	2 — Double Liter.	20 — Double Dekaliter.
$\frac{1}{10}$ — Deciliter.		50 — Demi-Hektoliter.
$\frac{1}{5}$ — Double Deciliter.		100 — Hektoliter.

Measures are made of wood, metal, glass, etc., suitable to their use ; the larger ones are cylinders having the depth and diameter equal to each other ; in the smaller ones the depth is twice the diameter ; their dimensions may be computed in millimeters by taking 3.1416 as the ratio of the circumference to the diameter.

SECTION 8. — Weight.

171. The unit of weight is the **gram**, which is the weight of one cubic centimeter of pure water at its maximum density.

				Equal to Vol. of Water.
One-thousandth of a gram,	or	.001 g.	= 1 milligram (mg.)	= 1 cu. mm.
One-hundredth of a gram,	or	.01 g.	= 1 centigram (cg.)	= 10 cu. mm.
One-tenth of a gram,	or	.1 g.	= 1 decigram (dg.)	= 100 cu. mm.
ONE GRAM,	or	1. g.	= 1 GRAM (g.)	= 1 cu. cm.
Ten grams,	or	10. g.	= 1 dekagram (Dg.)	= 10 cu. cm.
One hundred grams,	or	100. g.	= 1 hektogram (Hg.)	= 100 cu. cm.
One thousand grams,	or	1,000. g.	= 1 kilogram (K.)	= 1 cu. dm.
Ten thousand grams,	or	10,000. g.	= 1 myriagram (Mg.)	= 10 cu. dm.
One hundred thousand grams,	or	100,000. g.	= 1 quintal (Q.)	= 100 cu. dm.
One million grams,	or	1,000,000. g.	= 1 Tonneau (T.)	= 1 cu. m.

The common units in use are the gram, kilogram (called the Kilo), and the metric ton ; milligrams and centigrams are used in weighing the precious metals and other articles in which great precision is required ; but cubic centimeters are commonly used by chemists instead of the smaller weights and measures. The Kilo is the unit of weight for common articles of trade, and the Ton for heavy and bulky merchandise, like coal, hay, stone, etc.,

SECTION 9. — Approximate Equivalents.

172. The equivalents here given are accurate enough for most purposes, and are easy to remember.

A decimeter	= 4 inches.	A liter	= { 1.06 liquid quarts, or $\frac{9}{10}$ of a dry quart.
A meter	= 3 feet $3\frac{3}{4}$ inch, or $1\frac{1}{10}$ yards.	A dekaliter	= 1 peck and 1 quart.
A dekameter	= 2 rods.	A hektoliter	= $2\frac{1}{2}$ bushels.
A kilometer	= $\frac{5}{8}$ of a mile.	A gram	= $15\frac{1}{2}$ grains.
An ar	= 4 sq. rods, or $\frac{1}{40}$ of an acre.	A kilogram	= $2\frac{1}{2}$ pounds avoirdupois.
A hektar	= $2\frac{1}{2}$ acres.	A metric ton	= $2204\frac{1}{2}$ pounds avoirdupois.
A ster	= $\frac{1}{4}$ of a cord.		

SECTION 10. — Table of Equivalents.

173. Established by Act of Congress, July 26, 1866, for legal use in contracts, etc.

LENGTH.		WEIGHT.		Avoirdupois.	
1 millimeter	=	0.0394 inch.	1 milligram	=	0.0154 grain.
1 centimeter	=	0.3937 inch.	1 centigram	=	0.1543 grain.
1 decimeter	=	3.937 inches.	1 decigram	=	1.5432 grains.
1 meter	=	39.37 inches.	1 gram	=	15.432 grains.
1 Dekameter	=	393.7 inches.	1 Dekagram	=	0.3527 ounce.
1 Hektometer	=	328 feet 1 inch.	1 Hektogram	=	3.5274 ounces.
1 Kilometer	=	3,280 feet 10 inches.	1 Kilogram	=	2.2046 pounds.
1 Myriameter	=	6.2137 miles.	1 Myriagram	=	22.046 pounds.
			1 Quintal	=	220.46 pounds.
			1 Tonneau	=	2204.6 pounds.

AREA.	
1 Centar = 1 square meter	= 1550. square inches.
1 Ar	= 119.6 square yards.
1 Hektar.	= 2.471 square acres.

CAPACITY.	VOLUME.	DRY MEASURE.	WINE MEASURE.
1 milliliter	= 1 cubic centimeter	= 0.061 cubic inch	= 0.27 fluid dram.
1 centiliter	= 10 cubic centimeters	= 0.6102 cubic inch	= 0.338 fluid ounce.
1 deciliter	= 100 cubic centimeters	= 6.1022 cubic inches.	= 0.845 gill.
1 Liter	= 1 cubic decimeter	= 0.908 quart	= 1.0567 quarts.
1 Dekaliter	= 10 cubic decimeters	= 9.08 quarts	= 2.6417 gallons.
1 Hektoliter	= 100 cubic decimeters	= 2. bush. and 3.35 pecks	= 26.417 gallons.
1 Kiloliter	= 1 cubic meter	= 1.308 cubic yard	= 264.17 gallons.

USUAL TO METRIC DENOMINATIONS.			
1 inch	= 2.540 centimeters.	1 cord	= 3.624 Sters.
1 foot	= 3.048 decimeters.	1 liquid quart	= 0.9463 liter.
1 yard	= 0.9144 meter.	1 gallon	= 0.3785 Dekaliter.
1 rod	= 0.5029 Dekameter.	1 dry quart	= 1.101 liters.
1 mile	= 1.6093 Kilometers.	1 peck	= 0.881 Dekaliter.
1 square inch	= 6.452 sq. centimeters.	1 bushel	= 3.524 Dekaliters.
1 square foot	= 9.2903 sq. decimeters.	1 ounce av.	= 28.35 grams.
1 square yard	= 0.8361 sq. meter.	1 pound av.	= 0.4536 Kilogram.
1 square rod	= 25.293 sq. meters.	1 ton (2000 lbs.)	= 0.9072 Metric ton.
1 acre	= 0.4047 Hektar.		
1 square mile	= 2.590 sq. Kilometers.		
1 cubic inch	= 16.387 cu. centimeters.	1 grain Troy	= 0.0648 gram.
1 cubic foot	= 28.317 cu. decimeters.	1 ounce Troy	= 31.1035 grams.
1 cubic yard	= 0.7645 cu. meter.	1 pound Troy	= 0.3732 Kilogram.

Sets of standard weights and measures are furnished to each State by the general government, under Act of July 27, 1866, as follows; viz., — *Length*, one meter end measure, and one meter line measure, divided; *Weight*, one gram (with subdivisions), one demi-kilogram, one kilogram, and one myriagram or ten kilograms; *Capacity*, one liter and one dekaliter.

CHAPTER XXI.

SECTION 1. — Agency.

174. An **agent** is a person who has authority to act for, or in relation to the property of another, who is called the employer, or principal. The nature of the employment and the relation of the parties are to be considered in defining an agency: shipmasters, brokers, auctioneers, commission-merchants, consignees, bank-cashiers, clerks, attorneys, etc.; are agents. A man may do by his agent whatever he himself or the agent may lawfully do.

The signature of an agent is "A. B. by C. D.," A. B. being principal, and C. D. the agent; but the signature of "C. D. for A. B." is that of C. D. as principal, although in behalf of A. B. Commercial signatures are often made by procuration, which means the taking of care or management for another. When a person has a letter or power of attorney authorizing him to do certain things, his signature, as such, would be as follows; viz., —

<i>S. & C. Shepley,</i> <i>by John T. Farwell, Atty.</i>	or per pro. <i>S. & C. Shepley,</i>	<i>John T. Farwell.</i>
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Either form expresses the fact that S. & C. Shepley are the principals, and that J. T. Farwell holds their power of attorney, by virtue of which his signature has the same authority as their own. Checks, drafts, and notes are often signed in this way.

A **general agent** is one who manages a particular business at a particular place for an employer; a **special agent** is one who does some special thing as directed. An agent's authority may be granted under seal, or by a writing without seal, or verbally. Authority to do an act requiring a seal, as to convey land, must itself be sealed; express authority is that given definitely or explicitly; implied authority is that warranted by the agent's conduct, or such as the general custom prescribes; general authority is full power to do every thing pertinent to the business; special and limited authority is that restricted to a special act and governed by particular instructions; unlimited authority is when the agent is left to act according to his judgment or discretion.

A **principal** is bound by the acts of his general agent, if within the province of his ordinary business, even if it be contrary to orders; but he may repudiate the act

of a special agent if it exceed instructions. An agent is bound to obey orders, and to use the same degree of diligence and skill for his principal that competent persons would ordinarily use in their own interest; he must furnish timely information about affairs in his charge to the employer, and keep an account of the business and money separate from his own. He is entitled to payment for services, and to repayment for expenses incurred.

SECTION 2. — Partnership.

175. Partnership is the voluntary association of two or more persons who agree with each other to combine their labor, skill, or capital in a business, and to share the profits and bear the losses proportionately. Partners may contract with each other as to shares of capital furnished, profits divided, or losses borne, etc.; but all who are known or hold themselves out as partners are liable for the partnership debts. Each partner is the agent of his partners in making contracts for the firm, and each is responsible for the fulfilment of such contracts. Either partner may sign contracts relating to the partnership business, or its personal property, in the full name and style of the partnership; but other contracts, requiring seals (as land conveyances), should be assented to and signed by each of the partners in interest.

A partnership is **general** when no stipulation to the contrary is made, and the parties share in profits and losses. A **limited or special** partnership is when a person contributes a definite sum to the capital of a firm and stipulates that his liability for losses and share in the profits shall be in a certain ratio to his capital and no more; such contracts are governed by the laws of the State where they are made, and must commonly be recorded by the proper official and publicly advertised. Legal counsel should be taken in such a matter, as, unless the law is complied with, liability as a general partner may be incurred.

The profits are shared and losses borne among partners according to the original contract. When the capital invested and sums withdrawn are unequal, it is usual to reckon the **balance of interest** on each partner's account; that is, to credit him with interest on capital invested and debit him with it on sums drawn out; but such interest should be reckoned before shares of profit are included in the account. In the absence of any contract, the presumption of law is that profits are to be divided equally among partners.

Each partner has an equal right in the management of the firm's affairs; nor can one exclude another from such right or from possession of the partnership effects. A majority of a firm, acting in good faith and upon consultation with each

other, have power to bind the minority. A firm can sue and be sued only in the names of its partners. A partnership may expire by limitation, or be dissolved by mutual agreement; it may be terminated also by the bankruptcy of the firm, or of one partner, on being so adjudged, or by the death or absolute insanity of a partner. Surviving partners inherit the "goodwill" of a business, and they alone have the right to dispose of and settle partnership property. The representatives of a deceased partner can only call for the rendering of an account.

SECTION 3. — Incorporated Stock Companies.

176. The word stock, meaning a stick or branch of a tree, came into use in finance by an ancient custom in the English Court of Exchequer; when money was borrowed for the State, it was recorded by notches cut on a stick, which was then split through the notches; the lender took one-half, called his stock, and the treasurer kept the other half, called the counter-stock. Upon settlement the lender brought his stock, and the matching of its irregularities with the counter-stock was considered to be proof of his claim; they were also called tallies, and their use was abolished by Act of Parliament in 1783, but was not finally abandoned until 1826.

A **joint-stock company** is an association of persons incorporated by law for the transaction of some special business for a profit; it is not a partnership, and may be continued beyond the natural lives of its members by their successors, but may not engage in any enterprise not authorized by its charter. An owner of stock in a company is a member of it by virtue of ownership, without being voted in, and cannot be expelled while his ownership continues; the existence of a company may be terminated by the expiration or surrender of its charter or its forfeiture for violation.

The benefits of co-operation are self-evident, for it is plain that several men working together can move a heavy weight which one alone cannot stir. The advantages of a company are its longevity, and the concentration into one large fund of the small capitals of many persons; and these features make it possible for a company to undertake and carry out great enterprises of general utility and convenience which may be expected to continue beyond the term of one or more generations. Certain public franchises or rights, such as a right of way for a railroad, or the control of lakes and streams for the use of water, are granted to companies by legislatures. A company may hold real estate, may sue and be sued at law, and perform any act, within the limit of its charter, that may lawfully be done by a person.

The **stockholders** are, collectively, the company. Each share of stock carries one vote, and the managers of a company are members elected directors by vote of the stockholders; one of the directors is elected president, and the other officers, such as clerk or secretary, treasurer or cashier, superintendent or agent, are elected by the board of directors.

It is the duty of the **directors** to supervise and control the company's operations; they are trustees, and are liable for fraud or neglect of duty. Directors' meetings, to be legal, must be attended by a majority of the board, or by a quorum designated by law; they must also be within the State granting the charter, and at a time and place when and where each director may reasonably have opportunity to be present. The acts of the directors at a legal meeting, attested by a legal vote recorded by the clerk, are binding upon the company.

The **president** of a company is its chief executive officer, and his acts, with the approval of the directors, are authoritative as to its affairs.

The money needed for the purposes of a company is at first raised by a subscription for its stock, and the **capital stock** of a company is the entire sum paid in by its subscribers, who may be assessed for more in case of necessity (except in limited liability companies), or may receive dividends out of profits earned. Capital stock is divided into even shares, commonly of \$100 par value, and, being issued, it becomes an object of purchase and sale; its market price may be above or below par, and corresponds to the public estimation of the project.

Certificates of stock are issued to the owner, and entered in the company's Stock Ledger in the individual owner's name; upon his selling it, the old certificate is surrendered and cancelled, and a new one is issued to the new owner. Shares of stock are personal property, and ownership can be transferred by the owner only, or by his attorney, in the manner stated.

The **paid-up capital stock** of a company bears the same relation to its business as does the capital of a person to his private business, and the principles of accounts are the same in both; but the subscription for and transfer of stock is an element in the affairs of a company which does not exist in those of a private person. Shares of stock are not in any sense the property of the company, but of the stockholder who buys and pays for them, and thereby becomes a member of the company.

A project sometimes proves more costly than anticipated, and the money paid in by stockholders is exhausted before the company can come into a position to earn its expected returns; the expedient of issuing and selling such bonds as may be authorized by law is then resorted to. There may be two opposite reasons for

their issue: first, because, the company being embarrassed, people will not take additional stock without a prospect of dividends; and secondly, because the stockholders, having confidence in the enterprise, will not increase the stock, and thereby decrease the ratio of anticipated profits. A stockholder has no claim on a company except for profits earned; if there are none, he gets nothing, and the final holder of an insolvent dead stock must inevitably lose all of it.

Bonds are promises to repay the sum named at a future time, together with interest at stated times at a certain rate; and they are commonly secured by a mortgage of the company's property. The bondholder's claim takes precedence of the stockholder's, and he is entitled to the stipulated interest, whether there are profits or not, and to repayment on the expiration of the term. Bonds afford a smaller annual return than may be received from stock, but they are steady and definite, and therefore a safer and surer investment than stock. The ownership of bonds, like that of a negotiable note, passes or is transferred by delivery, while that of shares of stock passes only as before explained.

Preferred stock is a second series of shares, issued when additional capital is required, which are entitled to a specified ratio of profit before profits are divided to holders of common stock.

The **dividend** of a company is its net profit, divided into as many equal parts as there are shares; it is also the remainder of assets distributed to stockholders upon dissolution, or to creditors in insolvency.

In **organizing** a stock company with a capital of \$10,000, if ten persons take equal shares, each person subscribes for 10 shares at \$100 each, and pays \$1000 into the hands of the company's treasurer for his stock.

The **subscription list is debited** in the books of the corporation to the **individual subscribers**, and its **total is credited** to the **stock account**. Payments for stock are commonly made in instalments as called for by the terms of subscription, and credited to each subscriber on account until it is paid up. When all subscriptions are paid in, these accounts are closed and the stock certificates are issued; the **number of shares** owned by each stockholder is substituted for its money value, and placed to his credit to show its ownership and for convenience of transfer. When this has been accomplished, the common ledger page is modified to meet the new requirements.

The **Stock Ledger** is, however, a distinct and separate book from the General Ledger, and its total number of shares multiplied by the par value should be equal to the capital stock paid in as shown by the General Ledger. The subscribers' and stockholders' account is as follows:—

FORM OF STOCK CERTIFICATE.

Dr.				John Sands.				Cr.			
1882. July 1	To subscrip'n, 10 shares,		1,000		1882. July 1	By cash, 25% instalm't,				250	
					" 15					250	
					" 31					500	
			1,000							1,000	

Date.	To whom transferred.	Transfer No.	Certificate surrendered.		Date.	From whom transferred.	Transfer No.	Certificate issued.	
			No.	Shares.				No.	Shares.
					1882. July 31	By subscription,			10

SECTION 4. — Form of Stock Certificate.

BEAR VALLEY RAILROAD COMPANY.

No. 23580 250 Shares.

This Certifies That *Waldo Hutchinson,*
of *San Francisco, Cal.,* is the holder of
Two hundred and fifty Shares in the Capital Stock of the

BEAR VALLEY RAILROAD COMPANY,

transferable only on the books of the Company, in person or by Attorney,
at their office in Boston, upon the surrender of this Certificate.

Countersigned, and Certificates for an equal number of Shares cancelled.

In Witness Whereof, this Certificate is signed by the Treasurer of the Company and Countersigned by the Transfer Agent, Boston, Mass., this *twenty-ninth* day of *March*, 1882.

T. Brown, Transfer Agent.

Wm. Sands, Treasurer.

FORM OF TRANSFER (on back of Certificate).

For Value Received, *I* hereby assign and transfer unto *Nathaniel Curtis* the within *Two hundred and fifty* Shares in the Capital Stock represented by the within Certificate, and do hereby irrevocably constitute and appoint *Frank Curtis* Attorney to transfer said Stock on the books of the within-named Company, with full power of substitution in the premises.

Dated the *twelfth* day of *June*, 1882.

In the presence of *F. Tyson* *Waldo Hutchinson.*

It is customary, in practice, to leave the name of the attorney blank, and fill it with the name of some trustworthy person at the transfer-office. If Mr. Curtis lives at a distance, so that he cannot personally sign the transfer-books, he may appoint a substitute, as follows:—

For Value Received, *I* appoint, irrevocably, *The Treasurer of the Bear Valley Railroad Company* as *my* substitute, with all the powers above given to *me*.

Witness *my* hand and seal *July 1*, 1882.

Signed, sealed, and delivered
in the presence of

A. Sanders.

F. Curtis.



SECTION 5.—Transfer of Stock.

177. In large corporations, having many thousands of shares, the cancellation of old and issue of new stock certificates is a separate department, and is carefully guarded against fraudulent or over issue. The surrendered certificates are cancelled by cutting, and are kept as vouchers. The Transfer-book is balanced daily to show equal issue and surrender, and posted to the Stock Ledger to afford an index of ownership. The transfer-books are closed at a stated time before dividend-day, and dividends are declared to owners of that date. Many changes of ownership are made daily, and transfer agencies are established in a few of the principal cities, by the larger companies, for the convenience of local dealers.

In the annexed example, F. Leming has sold 388 shares, surrendering 370 shares held in his name and 18 shares in the name of Darwin & Patton, bought of them, and transferred by their attorney. New certificates are issued; viz., — No. 250, John Dyke, 300; No. 251, John Porter, 70; No. 252, H. Winton, 15; and No. 253, J. Shepley, 3: in all 388 shares.

FORM OF TRANSFER-BOOK.

Certificates Surrendered.		Certificates Issued.		Transfer No. 124.	Boston, July 19, 1882.
No.	Shares.	No.	Shares.		
17	80	250 J. D.	300	FOR VALUE RECEIVED, I hereby transfer and assign unto John Dyke, three hundred, 300 Henry Winton, Derby, Vt., five, 5 John Porter, Quincy, Mass., seventy, 70	
89	20	251 J. P.	70		
54	270				
Transfers.				Shares of the Capital Stock of the Bear Valley Railroad Company. Frank Leming.	
125	5	125 F. L.	5		
	375		375		

Certificates Surrendered.		Certificates Issued.		Transfer No. 125.	Boston, July 19, 1882.
No.	Shares.	No.	Shares.		
151	18	252 H. W.	15	FOR VALUE RECEIVED, we hereby transfer and assign unto Frank Leming, five, 5 Henry Winton, ten, 10 James Shepley, Dover, N.H., three, 3	
		253 J. S.	3		
Transfers.					
124 F. L.	5	124	5	Shares of the Capital Stock of the Bear Valley Railroad Company. Darwin & Patton, By James Dewey, Att'y.	
	23		23		

SECTION 6. — Corporation Accounts.

178. The accounts of a corporation will not differ, except in regard to stock transfers, from those of a person or firm in a similar business; and must be adapted to its special requirements. A pay-roll is necessary when many men are employed, and a form is here given.

Pay-Roll for the Month ending 18....

Name.	Occupation.	Time.	Rate.		Amount.		Balances due and retained per last Pay-Roll.		Total Amount due.		Total Amount paid.		Balances due to next Pay-Roll.		Signatures.
<i>J. Smith, W. Brown,</i>	<i>Machinist, Fireman,</i>	26 ds.	2	50	65	00	15	00	80	00	65	00	15	00	<i>J. Smith. W. Brown.</i>
		26 "	2		52		15		67		52		15		
					117	00	30	00	147	00	117	00	30	00	

SUPERINTENDENT'S STATEMENT OF ACCOUNT.

*Account for the Month ending 18....**Dr.*, Superintendent, in account with Company. *Cr.*

Date.	From whom and for what received.	Amount.	Date.	To whom and for what paid.	Amount.
	To balance from last Report, " receipts; viz., —			By am't paid as per Pay-roll, " items paid as per vouchers, with name and number,	

CHAPTER XXII.

SECTION 1. — Analysis of Financial Reports.

179. THE current newspapers often contain copies of financial reports made to their stockholders by incorporated companies; such a report is simply a balance-sheet of the company's principal ledger, and is made at stated intervals as required by law.

Dr. REPORT OF THE ALASKA RAILROAD CO., JULY 1, 1882. *Cr.*

Assets.		Liabilities.	
Construction,	14,000 00	Floating debt,	70 00
Equipment,	2,700	Funded debt,	8,000
Materials,	970	Due bondholders for interest,	430
Cash on hand,	420	Earnings from operation,	1,000
Notes receivable on hand,	80	Stock, 100 shares at par,	10,000
Expenses of operation,	900		
Interest,	430		
	19,500 00		19,500 00

The foregoing sums multiplied by one hundred or one thousand might represent some of the large enterprises which absorb so much money in their development. The bonds of an incorporated company are called the Funded Debt. The Floating Debt consists of such unsettled accounts as the company owes in addition to the funded debt. A division of the report into its elements affords the following statement:—

<i>Dr. Ordinary Accounts. Cr.</i>				<i>Dr. Subordinate Accounts. Cr.</i>			
420	00	Cash on hand.		14,000	00	Construction acct.	
80		Notes rec'ble on hand.		2,700		Equipment "	
				970		Materials "	
500	00	Total available assets.					
		Floating debt.	70	17,670	00	Total investment.	
		Funded "	8,000	430		Interest account.	
		Due b'dholders for int.,	430	900		Expense "	
8,000		Credit bal. net debt.				Earnings "	1,000 00
						Original stock,	10,000
						Debit bal. net debt,	8,000
8,500	00	Total debt,	8,500	10,000	00		19,000 00

If the investment be called worth what it cost, or \$17,670, and the net debt, \$8,000, be subtracted from it, a remainder of \$9,670 is left, showing that the business thus far has been a losing one; for the remainder is less than the original capital of \$10,000, and the company has used up its capital, and also \$8000 more borrowed on its bonds. The true measure of the value of an investment is not the sum which it has cost, but its power, by means of the facilities already developed, to earn money and pay the interest on a debt, and return a dividend to the stockholders. This can be judged of only by watching the course of the business. Let the business for the next six months be represented by the following transactions:—

<i>Debits.</i>				<i>Credits.</i>			
2,400	00	CASH	to	SUNDRIES.			
		For revenues from operation.		Earnings,	2,350	00	
		" notes taken up by promissor.		Notes receivable,	50		
		SUNDRIES	to	CASH,	2,750		
2,250		Expense, cost of operation.					
430		Bondholders, interest paid.					
70		Floating debt, paid.					
240		INTEREST	to	BONDHOLDERS,	240		
		For 6 months' interest accrued on \$8000 bonds.					

After posting these entries the balances of account stand as follows : —

REPORT OF THE ALASKA RAILROAD CO., JAN. 1, 1883.

Dr. Ordinary Accounts. Cr.				Dr. Subordinate Accounts. Cr.			
70	00	Cash on hand,		14,000		Construction.	
30		Notes rec'able on hand,		2,700		Equipment.	
		Funded debt,	8,000	970		Materials.	
		Due b'dholders for int.,	240				
8,140		Credit bal. net debt.		17,670	00	Total investment.	
				670		Interest account.	
				3,150		Expense "	
						Earnings "	3,350
						Original stock,	10,000
						Debit bal. net debt,	8,140
8,240	00		8,240	00	21,490	00	21,490

This term has been a losing one, for the net debt has increased. If the company could earn the operating expenses, together with the interest upon the debt and capital, the stock would be worth its par value; but if the work of construction were completed, and the plant to be sold as it stood, with such an exhibit of its earning power, it would not be worth more than the sum of the company's debt.

Permanent investments are worth only the sum upon which they can earn a reasonable interest, no matter what the actual cost of construction has been. If the business were such as to make its investments, not in the dead plant required for its operation, but in salable merchandise, the stock would have a value which could be realized by selling the property.

The **expenditures** of a company must necessarily be charged to an **expense account**, or to one **representing an investment** (like construction, etc.); a decrease of the former (the outlay being the same) must cause an increase of the latter.

The **interests of the stockholders** demand that the two kinds of accounts should be fairly stated, for two reasons: *first*, that the legitimate cost of construction may be shown to be what it really is; and, *secondly*, that the entire cost of operation may come out of the earnings, and so leave a sound basis upon which to declare dividends.

The relative increase and decrease of the accounts for construction and for operation can be judged of by the successive reports; but there is no infallible guide nor universal rule in such matters, which must, from their nature, be governed by varying conditions. The following report of a railroad company, showing a gaining business, is adapted from the Returns of the Massachusetts Railroad Commissioners for 1879.

Report of the Boston and Albany Railroad Company.

General Exhibit for the Year ending September 30th, 1879.

Total income	6,427,463	36
Total expenses (including taxes)	3,723,824	58
Net income	2,703,638	78
Rentals (specifying amount paid to each company); viz.,—		
Ware River Railroad	52,500.	
Pittsfield and North Adams Railroad	22,500.	
	75,000.	
Interest accrued during the year	470,000.	
Dividends declared (eight per cent)	1,600,000.	
Total of charges against net income	2,145,000	
Balance, surplus for the year	558,638	78
Surplus at commencement of the year	2,425,060.42	
Deduct uncollectible accounts	42,475.20	
Surplus at commencement of the year as so changed	2,382,585	22
Surplus, September 30, 1879	2,941,224	

Balance-Sheet, September 30th, 1879.

Assets.			Liabilities.		
Construction account,	24,368,716	50	Unfunded debt, as follows;		
Equipment account,	3,145,400		viz.,—		
Other perm't investm'ts, viz.,—			Interest unpaid	11,705.00	
Lands in Boston and			Dividends unpaid	846,572.00	
Worcester	119,678.96		Notes payable	105,000.00	
Lands in South Bos-			Vouchers and ac-		
ton, Flats	505,098.22		counts	42,424.80	1,005,701 80
Stock of West Stock-			Funded debt	7,000,000	00
bridge Railroad	13,000.		Total debt	8,005,701	80
Stock of Pittsfield &			Profit and loss (surplus)	2,941,224	
N. A. Railroad	61,954.		Capital stock, as follows:—		
Stock of Hudson			200,000 shares paid in	20,000,000	
River Bridges	475,485.				
Bonds of Jamestown					
and Franklin	27,200.	1,202,416 18			
Cash items, as follows; viz.,—					
Cash	708,193.07				
Bills receivable	253,000.				
Due from agents and					
companies	365,163.82	1,326,356 89			
Other assets, as follows; viz.,—					
Materials and sup-					
plies	454,036.23				
Improvement fund	450,000.	904,036 23			
Total assets	30,046,925	80		30,046,925	80

SECTION 2. — Examples for Practice.

180. The following are illustrations of such problems as often occur in mercantile transactions. A knowledge of the particular business, of the capital necessary for current uses, of the probable expenditure and possible income, etc., is required for their intelligent solution. The fourth example contains an element called the "goodwill;" an established business presenting an expectation of profit which may be worth purchasing, and which can be sold for a consideration.

Example 1.

A railroad corporation has a capital stock of \$100,000; it has expended \$50,000 for construction; its equipment cost \$35,000; it owns real estate which cost \$20,000; it has \$5,000 cash on hand; running expenses for the current year were \$10,000; earnings of all kinds for the same time were \$20,000. There are no debts.

Required a balance-sheet of the above data. Calling all the investments worth cost, what per cent of dividend can the road afford to pay, after reserving one per cent on its capital.

Example 2.

A steamship company owns steamers, worth \$40,000; its wharf property cost \$23,000; its expenses for the current term were \$7,000; its notes payable are outstanding for \$30,000; its capital stock is \$50,000; interest due on notes, \$900; the cash on hand is \$35,000; its earnings for the current term were \$25,000,

Required an analytical statement of these facts, and estimate of dividend to be paid after liquidating the debts.

Example 3.

A company begins with a cash capital of \$100,000; it expends, \$90,000 for the development of its property; it issues its bonds for \$100,000, which it sells for 10% discount for cash; due to bondholders one year's interest @ 7%; it expends \$50,000 for its working plant; its current expenses are \$25,000 for the first year, and there is no income.

Calling the investment worth what it cost, and the prospects good for ultimate development, what is its stock worth per share, par value being \$100, as shown by the above data? Required an analysis of the facts, and the value of the bonds based on this exhibit.

Example 4.

A physician began practice with \$500 cash capital, and his education; his average earnings for one year were \$2500 in accounts receivable, and \$2500 in money; his average expenses were \$2000, in money; \$500 worth of his accounts receivable were charged to Profit and Loss.

Required a synopsis of his business and an estimate of the worth of its "goodwill" to an equally able successor for purchase.

SECTION 3. — Insurance.

Insurance is a contract whereby one party, A, undertakes, for an agreed consideration, to indemnify another party, B, for loss on a specific risk, under certain conditions. A is the **insurer** or **underwriter**, and B the **insured**; the life, or right of property insured, is called the **insurable interest**. **Fire insurance** is indemnity for loss of buildings or goods by fire; **marine insurance** for loss of vessels and cargoes at sea. **Life insurance** indemnifies the heirs or assigns by paying them a stated sum after the death of the insured; **accident insurance** secures a stated allowance during disability. Incorporated insurance companies are either **stock** or **mutual**, or a combination of the two features. In the **mutual companies** the members are themselves the insured, and are liable to be assessed for losses. The written contract, defining the conditions, is called the **policy**. A **closed** or **valued policy** is one where the value of the subject is expressly agreed upon. An **open policy** is one expressing a gross amount upon which specific amounts may be afterwards indorsed. A verbal agreement between the parties is binding before the delivery of the policy. A misrepresentation of an essential fact by the insured will defeat a life, fire, or marine policy. The **duration** of a risk is generally for a specific time; but insurance of goods in transit by land or sea may be from the starting-point to the place of destination. The date of a policy is essential, and each separate contract, in an open policy, must be dated at time of signing. The **amount** of insurance on buildings and stocks of goods is usually less than the supposed value; goods in transit are insured for enough to cover cost and transportation. The **rate** or **premium** is a percentage upon the amount insured, and differs according to the risk.

Taxes.

The expenses of state, county, and town governments are met by assessments upon the persons and property of the citizens. A **poll-tax** is a stated sum paid by each male of legal age, and in some states its payment is a prerequisite for voting. A **property-tax** is assessed upon real and personal estate, and is apportioned at a percentage upon the valuation of the property. **Real estate**, such as land and buildings, is **immovable** property; **personal estate**, such as goods, cattle, vessels, shares of stock, notes, accounts, money, etc., is **movable** property. Those who appraise the value of property and apportion taxes are called **assessors**. The amount of taxes to be raised in towns is voted by the citizens in town meeting. The entire taxable property in a town is valued and the number of polls counted. The poll-taxes are deducted from the amount to be raised, and the remainder is divided by

the total amount of taxable property; the quotient is the **percentage of tax** or the **rate** to be paid on one dollar of property. The **assessed value** of a person's property multiplied by the rate will give his share of the property-tax; viz., —

The entire tax to be raised by a town is \$10,600. There are 300 polls, each taxed \$2. and the assessor's valuation of the property is \$1,250,000; thus, $\$10,600 \div \$600 = \$10,000$, $10,000 \div 1,250,000 = 0.008$, or eight mills on the dollar. Required the property-tax of a person owning \$4000 real estate and \$6000 personal property. $4000 + 6000 = 10,000 \times 0.008 = \80 .

CHAPTER XXIII.

SECTION 1.—Banks and Banking.

181. A **bank** is a joint-stock corporation having power to receive deposits of money, to make loans of the same by discounting notes, and to issue notes for circulation. State banks and private bankers may receive deposits and make loans, but the former do not issue notes because of a prohibitive tax on circulation. **Savings banks** receive small sums, paying interest thereon, and may loan on real estate or personal security.

The **capital stock** of a National Bank must be fully paid in, and stockholders are liable to the extent of twice the par value of their shares for the debts of the corporation. Not less than \$50,000 of the capital must be invested in United States bonds, which are deposited with the United States Treasurer as security for its circulation. The **circulating notes** are, in amount, not more than 90% of the bonds deposited, and must be redeemed at the bank or at the United States Treasury.

Loans upon the bank's own stock, or circulating notes, or upon real estate, are forbidden; they may be made, upon personal security only, to the extent of not more than 10% of the capital to any one person, firm, or corporation. The **rate of interest** charged must not exceed the legal rate in the State of location. The notes of other National Banks must be received by the bank in liquidation of debts due to it; and a reserve of coin or legal-tender notes, in a certain ratio to the deposits, must be kept on hand. **Taxes** are assessed by the general government on the amount of circulation, and by the State where located upon the capital stock. **Losses** and bad debts must be charged to the profit and loss account, and 10% of the net earnings added to the surplus fund semi-annually before the declaration of a dividend.

Full statements of resources and liabilities are required by the United States Comptroller of the Currency several times annually, and personal examinations by

the Bank Examiners are frequently made. A known and wilful violation of the provisions of the Bank Act by the directors forfeits the rights and privileges of the charter, and the directors are personally liable to the persons damaged by such violation. If a bank becomes insolvent a receiver is at once appointed.

The public advantages of the **National Bank system** are, *first*, the **issue and circulation** of a national currency of uniform value throughout the Union, replacing the bills of the old State banks, and saving domestic exchange; *second*, **perfect security** to the noteholders by the pledge of the United States bonds; *third*, the notes being **receivable and payable at par** for all debts due to and from the United States except duties on imports and interest on the public debt; *fourth*, the **redemption of the notes** by the bank in gold and silver legal-tender coin and notes; *fifth*, the **failure to redeem**, on the part of the bank, in lawful money, is followed by certain proceedings, — the sale of the pledged bonds, and the redemption of the notes with the proceeds thereof by the United States.

The extent to which the facilities of the National Banks are made use of for the discount of notes and other commercial paper may be seen in the following table, from the report of the Comptroller of the Currency, showing the number and denomination of discounted notes held by these banks on October 2, 1879 : —

GEOGRAPHICAL DIVISIONS.	No. of Banks.	NUMBER AND DENOMINATIONS OF NOTES.						TOTALS OF NOTES.		
		\$1 to \$100	\$100 to \$500	\$500 to \$1000	\$1000 to \$5000	\$5000 to \$10000	\$10000 and over.	Number of Notes.	Amount.	Average.
New England States . .	547	30,167	54,965	20,444	33,621	10,082	4,590	153,869	\$240,552,893.63	\$1,563.36
Middle States	641	115,285	132,032	39,484	50,854	11,453	5,276	354,384	416,600,226.30	1,175.56
Southern States	175	15,752	24,480	7,862	8,936	1,283	416	58,729	45,890,807.95	781.40
West'n States and Ter.	685	90,141	84,563	27,590	31,812	5,381	1,800	241,287	171,969,179.22	712.72
United States	2,048	251,345	206,040	95,380	125,223	28,199	12,082	808,269	\$875,013,107.10	\$1,082.58

The Comptroller says that if the average time of these notes was sixty days, and the banks held the same amount continuously, the number of discounts during the year would be nearly five millions, and the total amount more than five thousand millions of dollars; which would be equal to \$700 annually for each voter, or \$500 for each family in the country. The number of notes less than \$100 is nearly one-third, the number less than \$500 is more than two-thirds, and the number less than \$1000 is more than three quarters of the whole number.

The considerations which govern bank directors in **discounting notes** are, *first*, the ability of the bank to redeem the demandable portion of its debt; *secondly*, whether the depositors will be likely to maintain their average balances in the bank, which may be judged from the actual condition of mercantile business, together with the average of the consecutive bank statements for previous years; *thirdly*, the quality of the paper offered for discount, that is, the sufficiency of the security and the rate of interest to be earned.

The **managers** of the National Banks are, for the most part, merchants who have from ten to a hundred times as much capital invested in manufacturing or trade as they have in the banking business. The **depositors**, who are in active business, are also **borrowers** at times; and the bank, by collecting the surplus funds of many depositors, affords the capital to the merchant borrower at the critical moment when he might not otherwise be able to obtain it. The bank is not simply a money-making machine, but an association for mutual help; it is a channel where the tide of money is always ebbing and flowing; the lender pours in his quota and the borrower dips out what he requires. The one cannot exist without the other, since capital is of no value unless it can be used.

A **bank check** is an order addressed to a bank, and properly signed by a person having a deposit therein, directing the payment of a definite sum of money to a person named or his order, or to bearer. It must be so written as to be negotiable, and for the payment of money only. It is without grace, and is due on demand; but want of diligence on the part of the holder in its presentation at the bank for payment, does not relieve its signer from responsibility, if the bank should stop payment meanwhile, for the giving of a check is not payment if the check is not paid by the bank. The death of a depositor stops payment of his outstanding personal checks thereafter by the bank.

A **cashier's check**, or **bank draft**, is an order for the payment of money drawn by one bank upon another, usually in some other city or town, for the convenience of merchants in making their remittances and settlements. Each country bank keeps a deposit in the larger cities of its section, and the city banks, in turn, keep funds in other cities.

In 1871 the late President Garfield, then chairman of the House Committee on Banking and Currency, requested the Comptroller of the Currency to cause an analysis to be made showing the character of the receipts of fifty-two national banks which he selected in the large cities,—the smaller interior cities, and at remote country points. During the week designated \$157,000,000 were received over the counters of these banks, of which only \$19,370,000 or about twelve per cent,

was in currency; while the remaining eighty-eight per cent, or the vast sum of \$137,630,000 representing every grade of business, was entirely in checks, drafts, and commercial bills. Following out this idea, Comptroller Knox caused returns to be made by all the National Banks upon June 30, 1881, showing the character of all their receipts upon that day. Returns were received from 1966 banks, which, when tabulated, gave the following result:—

LOCATIONS.	No. of Banks.	Receipts.	PROPORTIONS OF			
			Gold Coin.	Silver Coin.	Paper Currency.	Checks, Drafts, etc.
			Per cent.	Per cent.	Per cent.	Per cent.
New York city	48	\$167,437,759	0.27	0.01	1.02	98.70
Other principal cities . . .	187	77,100,715	0.76	0.15	4.71	94.38
Elsewhere	1731	40,175,542	2.05	0.77	15.47	81.71
Totals, United States . . .	1966	\$284,714,016	0.65	0.16	4.06	95.13

It will appear from this that very nearly all business values transferred in this country are exchanged by means of bank checks and drafts.

SECTION 2. — The Clearing-House.

182. In a large city where there are many banks, each bank receives from its depositors, and in other ways, many checks upon other banks. The separate collection of these would be an almost interminable labor, were it not for the clearing or settlement plan, which was first organized in London about 1773, adopted in New York in 1853, and, since then, in the larger cities of the Union.

A Clearing-House, so called, is an association of the banks of a city for the purpose of effecting the daily exchanges between the several banks at one place and one time, and the payment at the same place of the balances resulting from such exchanges. The association is not responsible for such exchanges, except for balances paid into the Clearing-House, and the responsibility is limited to their faithful distribution. If any loss should occur while in such custody, it would be borne by all the members proportionately.

The Boston association has fifty-one banks upon its list; two numbers, 30 and 38, are blank (see page 195), numbered in the order of seniority. No. 1, the Massachusetts, chartered in 1784, is the oldest bank in the country, except the Bank of North America, at Philadelphia, which was chartered in 1782. An exchange and settlement of checks upon each other is made at 10 o'clock A.M. every business day.

If Bank No. 1 receives, from its depositors, checks upon Bank No. 2 for \$10,000 and Bank No. 2 receives, upon deposit, checks upon Bank No. 1 for \$10,000 the amounts offset each other, and an exchange of the two lots of checks settles the difference between the two banks. A bank which has the larger sum drawn against it becomes a debtor bank, and has to pay the difference, as follows; viz.,— If Bank No. 1 has checks upon Bank No. 2 for \$10,000 and Bank No. 2 has checks upon Bank No. 1 for \$15,000, Bank No. 1 becomes the debtor bank, and would pay the difference of \$5000 to Bank No. 2 upon exchanging the checks. But instead of settling with each other separately, requiring fifty-one separate journeys by as many messengers to as many banks, and taking several hours' time for each man, the entire settlement is made at once and in one sum by each bank with all the other banks.

The routine of one bank followed out will serve to explain the system. For example, in Bank No. 1, at the close of business each day, all checks received, drawn upon other banks, are sorted out, each bank by itself, and a list of each sort made upon an exchange slip, the first being headed "No. 2 National Union Bank, from No. 1 Massachusetts National Bank," and so on, running through all the numbers except itself. A list of the totals of these slips is made upon a sheet, of which the following is a partial example:—

No. 1. *Massachusetts National.**Settling Clerk's Statement. Jan. 17, 1882.*

No.	List of Banks.	First Debit.	Additions.	Total Debit.	Banks Cr.
2	National Union . .	\$3,789.45	\$2,500.	\$6,289.45	\$7,549.82
3	Old Boston National,	5,687.34	1,519.85	7,207.19	8,479.64
4	State National . . .	4,221.56	2,657.	6,878.56	2,736.85
5	New England Nat'l .	5,985.20	925.42	6,910.62	5,842.71
6	Tremont National .	7,509.66	614.92	8,124.58	4,988.27
7	Columbian National,	8,722.31	650.	9,372.31	5,846.28
The total footing of debits made up before the clearing is . .				\$239,179.70	
The total footing of credits made up during the clearing is . .					\$204,014.90

The numbers and names are the same as those of the Clearing-House Proof (page 195). The separate sum of checks against each bank is placed against its name in the First Debit column; such checks as may come in the early mail next morning are put under the head of Additions, and the total debit must be footed and separate packages of checks ready to be at the Clearing-House at 10 o'clock A.M. Each bank sends two men, a messenger and a settling clerk, to the clearing, making for Boston, 102 men, besides the manager and clerks of the Clearing-House.

The principal feature of the room is a long horseshoe counter running through its centre and divided into compartments, one for each bank, numbered in the order of the list. Each Settling Clerk, as he enters, hands to the manager or his clerk, a credit-ticket, stating the total amount of exchange he has brought from his bank.

CREDIT TICKET.	No. 17. BOSTON CLEARING-HOUSE, <i>Jan. 17,</i> 1882.
	<i>Credit</i>
	SECOND NATIONAL BANK, \$ 622,717.34
	<i>W</i> Settling Clerk.

No. 1 Settling Clerk takes his place at No. 1 desk, inside the horseshoe, with his statement before him, while No. 1 Messenger, with his packets of checks and exchange slips, arranged in the desk order, stands opposite him on the outside. The credit-tickets are entered by the manager's clerk upon the Clearing-House Proof, against the name of the respective banks, in the column of Banks Cr., and the footing of this is the **total exchange brought**. Precisely at 10 A.M., at a given signal, Messenger No. 1 takes one step outside the counter to Desk No. 2, and delivers to Settling Clerk No. 2 the packet of checks for No. 2 Bank, together with a check-ticket stating the total exchange from No. 1 for No. 2; he then takes


CHECK TICKETS.

No. 9.
NATIONAL CITY BANK,
FROM
No. 44, Third National Bank,
40 Dolls. — Cts.

No. 10.
WASHINGTON NATIONAL BANK,
FROM
No. 45, Everett National Bank,
3793 Dolls. 09 Cts.

another step to desk No. 3 and does the same; and so around the counter to each of the other banks, followed in single file by the other messengers in their order of numbers. When every messenger has completed the circuit back to his place the

exchange is made; and, if each has a packet for every other bank, 2550 packets have been exchanged in five or six minutes. Each Settling Clerk enters upon his statement, in Banks Cr. column, the **return exchange** received from each bank, and, when he has finished and footed it, he sends a balance-ticket to the manager,

BALANCE TICKET.	NO. 17. BOSTON CLEARING-HOUSE, <u>1 / 17</u> , 1882.	
	DR. SECOND NATIONAL BANK,	Am't Rec'd, \$ <u>289,703.93</u>
	CR. " " "	Am't Bro't, \$ <u>622,717.34</u>
	Balance \$ due Clearing-House.	
	Balance due the Second National Bank, \$ <u>333,013.41</u>	
	 Settling Clerk.	

showing the total brought, the total returns received, and the difference for or against his bank. The **total returns** received by each bank are entered against their names upon the Clearing-House Proof (see p. 195), under Banks Dr., and the total of this should be exactly equal to the total amount brought by them all, stated under Banks Cr.; the totals of the debit and credit balances should also be exactly equal.

The messenger is now at liberty to take the return exchange, consisting of checks drawn upon his bank, and return to it; while the Settling Clerk must remain until a proof is announced. If the totals of the proof do not agree, the difference is reported, and each clerk turns to his sheet to find the error; if the search for it is protracted after 10.30 A.M. a fine of \$2 for each fifteen minutes or fraction thereof consumed in it is incurred by the bank whose clerk makes the error.

No money is held by the Clearing-House until the Debtor Banks send in their balances. These must all be paid in by 12.15 P.M.; at 1.30 P.M. the House is ready to pay the Creditor Banks. Balances are paid in gold coin or coin certificates, except for sums under \$1000, which are paid in bank-bills. Special depositories of gold coin are established by the Clearing-Houses of the cities, in order to save the risk and inconvenience of repeated handling and transportation. Certificates are issued in return for deposits of gold in sums of \$1000, \$5000, and \$10,000, which may be transferred to other banks, members of the Clearing-House, by indorsement. Errors in the exchanges must be adjusted between the banks who are parties thereto; and checks which are found not to be good must be returned to the bank

whence they came, and in no case retained after 1 P.M. Reclamations for errors in sealed bags of coin must be made against the bank whose mark they bear. The credit and balance tickets given can be traced out in the Clearing-House Proof. The check-tickets appear only in the statements of the two banks concerned.

Through the use of banking facilities by merchants, transactions amounting to over fourteen millions of dollars have been settled as in the Proof, entirely by transfers of credit, except the difference of a little more than one and three-quarter millions of dollars which has been paid in gold; that is to say, the difference between values bought and values sold offset against each other is equal to the clearing balance shown.

“Checks and clearings dispense with large amounts of coin and notes which would otherwise be necessary. Vast sums are settled by transfers of credit without using money, except for **final balances**. Checks are used in large transactions, while coin and currency are but the small change of trade. Yet all payments depend for their integrity upon a **true measure of value**, which is a gold coin of standard weight and quality. Coins not subsidiary, intrinsically worth less than the standard, and paper money not at once redeemable in gold, disturb values.”

An English writer on banking, quoted by the Comptroller in his report for 1881, says: “The cheque and the Clearing-House system are the main lines upon which banking is destined to run. Those details of office organization and book-keeping which save time are, from the enormous number of documents passing through the hands of bankers, of more weight than the most learned treatise on notes and note makers.”

The payments of the United States Assistant Treasurer to the New York Clearing-House during the year ending Oct. 1, 1881, averaged $2\frac{1}{4}$ tons of gold daily, which was transferred in bags upon drays. An act authorizing the issue of certificates in return for gold deposited in the Treasury is now in operation.

The total exchanges of the New York Clearing-House for the year ending Oct. 1, 1881, were more than eighteen billions of dollars. The balances paid in money were less than one billion eight hundred millions of dollars, consisting of \$1,394,966,000 in Clearing-House certificates (entitling the holder to special deposits of coin in the Bank of America), of \$8,633,161 in legal-tender notes, and \$372,419,000 in gold coin, weighing 686 $\frac{1}{2}$ tons, which in silver dollars would have been about 11,000 tons. The daily average balances were nearly six millions of dollars, or about 3.5 per cent of the settlements. The average ratio of balances paid in money from 1854 to 1881, a period of 28 years, is 4.2 per cent, on a total exchange of 584 billions of dollars.

BOSTON CLEARING-HOUSE PROOF, JANUARY 17, 1882.

No.	BANKS.	Balances due to Clearing-House.		EXCHANGES.				Balances due to the Banks.		No.
				Banks, Dr.		Banks, Cr.				
1	Massachusetts National,			204,014	30	239,179	70	35,165	40	1
2	National Union . . .	39,710	22	189,307	84	149,597	62			2
3	Old Boston National . .			58,383	99	103,484	68	45,100	69	3
4	State National . . .	69,057	31	221,551	87	152,494	56			4
5	New England National . .	44,171	24	157,300	92	113,129	68			5
6	Tremont National . . .			228,971	81	236,429	88	7,458	07	6
7	Columbian National . . .	181,689	57	284,212	80	102,523	23			7
8	National Eagle			548,510	86	550,861	01	2,350	15	8
9	National City			40,560	93	53,263	51	12,702	58	9
10	Washington National . .	11,246	68	50,149	63	38,902	95			10
11	North National	43,894	97	365,405	74	321,510	77			11
12	Atlantic National . . .	45,934	47	109,503	47	63,569				12
13	Merchants' National . .			707,545	95	879,278	91	171,732	96	13
14	Traders' National . . .			151,885	61	161,897	86	10,012	25	14
15	Hamilton National . . .	65,815	81	179,882	65	114,066	84			15
16	Market National	8,348	40	41,329	19	32,980	79			16
17	Second National			289,703	93	622,717	34	333,013	41	17
18	Atlas National	166,257	42	280,058	15	113,800	73			18
19	Shoe and Leather Nat'l.	13,651	52	217,757	49	204,105	97			19
20	Shawmut National . . .			542,972	31	560,631	07	17,658	76	20
21	National Exchange . . .	84,778	66	840,108	74	755,330	08			21
22	Nat'l B'k of Commerce . .			619,839	76	947,922	21	328,082	45	22
23	Nat'l B'k of N. America,			166,307	87	200,429	46	34,121	59	23
24	Faneuil Hall National . .	18,000	06	134,543	30	116,543	24			24
25	National Webster			107,062	59	108,898	47	1,835	88	25
26	Eliot National	65,415	54	208,074	03	142,658	49			26
27	Howard National	49,607	85	256,264	93	206,657	08			27
28	Suffolk National			369,068	79	573,419	62	204,350	83	28
29	Globe National			76,793	19	101,084	02	24,290	83	29
31	Freeman's National . . .	6,090	77	72,619	34	66,528	57			31
32	Boylston National . . .	2,993	05	32,156	06	29,163	01			32
33	Blackstone National . . .	82,953	81	344,916	29	261,962	48			33
34	Boston National	78,191	50	267,942	43	180,750	93			34
35	Maverick National . . .	16,094	87	834,678	33	818,583	46			35
36	Nat'l Hide and Leather,	81,744	87	352,342	20	270,597	33			36
37	Nat'l Bank Redemption,	179,982	50	1,491,881	04	1,311,898	54			37
39	First National	80,565	46	491,330	85	410,765	39			39
40	National Revere			463,232	81	823,835	53	360,602	72	40
41	Nat'l Bank of Republic,	25,641	22	162,614	92	136,973	70			41
42	Continental National . .			118,375	14	192,709	11	74,333	97	42
43	Mount Vernon National,			42,880	83	54,528	58	11,647	75	43
44	Third National	23,901	66	110,064	20	86,162	54			44
45	Everett National			98,926	01	119,468	70	20,542	69	45
46	National Security			84,656	73	101,987	13	17,330	40	46
47	Broadway National . . .			12,579	38	30,603	75	18,024	37	47
48	Nat'l Bank Com'wealth,	103,395	87	805,143	14	701,747	27			48
49	Central National	54,150	57	159,864	38	105,713	81			49
50	Manufacturers' Nat'l . .	85,221	57	216,628	60	131,407	03			50
51	Fourth National	42,004	17	235,728	37	193,724	20			51
52	Metropolitan National . .	2,387	95	68,145	80	65,757	85			52
53	Merchandise National . .			58,601	29	101,143	10	42,541	81	53
	Aggregates	1,772,899	56	14,172,380	78	14,172,380	78	1,772,899	56	

SECTION 3. — **Bank Statements.**

183. A **bank statement** is a balance-sheet of the bank's principal ledger, and is sworn to by the cashier and attested by several of the directors; it is published, at the time of its making, in the local newspapers. The form is substantially like the example given, which, however, is analyzed or subdivided, and affords all the information to be had without minute inquiry into the character and composition of the items; most of these particulars define themselves, but some may require explanation.

To begin with the list of **resources**. The items due from other banks, United States Treasurer, and reserve agents are the total sums due to the bank from the respective classes of accounts. The item of **loans and discounts** consists of discounted notes, drafts, etc., owned and held by the bank, and which are maturing and being paid in from day to day. The item of **exchange for clearing-house** is the total sum of checks and drafts upon other banks received from depositors during the day, and exchanged and settled on the next day through the Clearing-House. The items of **bank-bills, specie, and legal-tender notes** are the sums of coin and currency on hand for present use.

The foregoing items comprise all the resources of the bank in ordinary use and subject to momentary changes; but it also owns the **bonds** deposited with the United States Treasurer to secure its circulation outstanding, and other bonds which secure the deposits of United States officials; besides this the redemption fund, equal to 5% of its circulation, is also its property. The item of **real estate** is the cost or valuation of that kind of property.

The foregoing items, classed as Ordinary Accounts, comprise the **entire resources** of the bank. The item of current **expenses and taxes** belongs under the head of Subordinate Accounts, and is the total of running expenses during the current dividend term.

The list of liabilities comprises, *first*, the **accounts** which are owed by the bank to its depositors and also to other banks and bankers; these, together with **unpaid dividends**, make up the demandable portion of its debt; and, *secondly*, the **outstanding circulation** which is covered by the deposit of United States bonds with the United States Treasurer, as stated on the other side. All these may be classed as Ordinary Accounts. The remainder of the list is classed as Subordinate Accounts, and comprises the **undivided profits, surplus fund, and original capital stock**, all of which are the private property of the stockholders, who are, corporately, the bank itself; but they cannot demand or receive back their capital from the corporation until all other demands against the bank are satisfied.

**Report of the Condition of the Merchants' National Bank, Boston, in the State of Massachusetts,
at the Close of Business on the Thirty-first day of December, 1881.**

<i>Dr.</i>	<i>Ordinary Accounts.</i>				<i>Cr.</i>
Resources.			Liabilities.		
Loans and discounts	7,777,477	12	Individual deposits, subject to		
Due from reserve agents . . .	702,084	60	check	8,188,043	51
" " other Nat'l banks . . .	1,260,062	83	Demand certificates of deposit,	140,339	87
" " State b'ks & b'kers, . . .	18,789	05	Deposits of United States dis-		
" " U. S. Treasurer	14,000		bursing officers	24,655	02
Exchanges for clearing-house,	1,468,389	42	Due to other National banks .	468,558	72
Bills of other banks	139,840		" to State and other banks,	322,975	33
Specie; viz., —			Dividends unpaid	6,365	50
Gold coin 480,823.			Total demandable debt . .	9,150,937	95
Silver coin 20,877.97			National bank notes outstand-		
Gold treas. certif.. 25,000.	526,700	97	ing	2,250,000	
Legal-tender notes	401,000				
United States bonds on hand .	20,000				
All of usual resources . .	12,328,343	99			
Real estate; viz., —					
Banking-house . . . 450,000.					
Other real estate . . 70,000.	520,000				
United States bonds to secure					
circulation	2,500,000				
United States bonds to secure					
deposits	125,000				
Redemption Fund (5% of cir-					
culation) with United States					
Treasurer	112,500				
Entire available resources,	15,585,843	99	Entire debt	11,400,937	95

Subordinate Accounts.

Current expenses and taxes			Undivided profits	224,674	21
paid	39,768	17	Surplus fund	1,000,000	
			Capital stock	3,000,000	
Total debits	15,625,612	16	Total credits	15,625,612	16
Ordinary Accounts.			Subordinate Accounts.		
From assets	15,585,843	99	From capital and profits . .	4,224,674	21
Subtract debts	11,400,937	95	Subtract expenditures . . .	39,768	17
Leaves present capital . .	4,184,906	04	Leaves present capital . .	4,184,906	04

SECTION 4.—The Daily Balance-Book.

184. The ordinary forms of property dealt in by banking corporations (such as notes, drafts, checks, bank-bills, coin, etc.) are stated in definite and ascertained figures; it is also necessary that the **balances** of accounts should be continually and instantly known. Hence the books of a bank are so kept as to show the daily balance of each account; the example given is a depositors' ledger or **credit** balance-book; a separate statement in the same form is made of those accounts which usually show a **debit** balance. A proved summary in the form of the bank statement, but with more particular specifications, is made daily for the guidance of the executive officers. The minor books kept by the tellers are registers of receipts and payments, and are proved daily.

The plan as here given exhibits but a part of the balance-book, the remainder being a repetition of the columns for one day; its full size is about 24 inches long by 18 inches wide to the leaf, or 36 inches across when the book is open; each page contains three sets of columns, each set being devoted to one day's work, and there are spaces for six days (or one week) to an opening. Accounts run from left to right in a horizontal line across both pages of the open book. There are about forty names, or accounts, to a page, which are printed when the book is made, but new accounts have to be written in.

Several pages are in use at once for each day when there are a large number of names, and a recapitulation of the footings of each page is made on the last page in use, from which a grand total is taken. It will be seen that the footing of the totals of checks, deposits, and balance columns proves the correctness of each account. The clearing-house checks are those which have been deposited in other banks on the previous day, and are received from the clearing-house on the morning of the day when they are written in. They are entered in red ink, in order to distinguish them from the counter checks, which are paid over the counter in bills or coin on the day when they are charged.

The grand total of checks is the entire sum of the checks paid each day; while the entire deposits are summed up in like manner, and the grand total of balances at the close of the day is the net remainder of deposits in the bank. One book is generally made so as to last for twenty-six weeks, or six months. Debit balances are written in red ink in order to distinguish them from credit balances, which are written in black. Two or three lines may be assigned to an account. Alternate horizontal red lines guide the eye across the page. The narrow marginal columns are for noting initials of discounts, collections, etc.

PLAN OF NATIONAL BANK DAILY BALANCE-BOOK.

NAMES.	Monday, August 7, 1882.						Tuesday, August 8, 1882.					
	Dr.			Cr.			Dr.			Cr.		
	Clearing-House Checks.	Counter Checks.	Total of Checks.	Total of Deposits.	Deposits.	Balances.	Clearing-House Checks.	Counter Checks.	Total of Checks.	Total of Deposits.	Deposits.	Balances.
Adams, C. . .		100.	100.	216.94		549.11		100.	100.	613.11	200.	1042.22
Adams, John . .	400.		400.			500.	64.		64.	317.62	413.11 dis.	753.62
Atlantic Co. . .		200.	213.16	266.67	216.67	1068.14		344.60	344.60			723.54
Atwater, B. . .		5.16	5.16		50.	14.28	1.16		1.16	50.		63.12
Am. Thread Co. .	200.		1566.13	2416.33		7520.30	11.	414.	639.38	1124.17		8005.09
Allen, P. . .	250.						190.41	23.97				112.
Andrews, C. . .	13.	50.	63.	1116.15	200.	1369.59				719.		2088.59
Ames Plough Co.	10.	1000.	3030.		916.15 dis.	6435.13	5016.24	100.	5116.24			1318.69
Archer, W. . .	840.12		840.12	1116.		1223.70	1000.		1000.	1000.		1223.70
Allen, R. . .		65.	65.	200.		385.						385.
Amesbury Mills .	1800.		4032.16	2463.11		1447.19	116.11	16.	2310.75	2843.63	516.11 W. 213.84 S. 2113.68	1980.07
Atwood, N. . .	1073. 34. 25.16 1100.					25.16	900.			6667.53		25.16
Totals . . .			10114.73	7795.20		20629.60			9576.13			17721.

Summary Exhibit of the Condition of the 2132 National Banks in the Union at the close of Business on the 1st day of October, 1881, analyzed and adapted from the Report of the Hon. John Jay Knox, Comptroller of the Currency.

The four right-hand integers of dollars are rejected, and the amounts extend from tens of thousands to millions and billions of dollars.

RESOURCES.		LIABILITIES.	
<i>Ordinary Accounts.</i>		<i>Ordinary Accounts.</i>	
Due from reserve agents	Millions. 132.97	Individual deposits	Millions. 1,071.
“ “ other National banks	78.51	United States deposits	8.48
“ “ other banks and bankers,	19.31	United States disbursing officers' deposits	3.63
“ “ United States Treasurer,	1.36	Due to other National banks	205.86
Loans and discounts	1,169.02	“ “ “ banks and bankers	89.04
Over drafts	4.77	Bills payable	4.66
United States bonds on hand	40.97	Notes and bills rediscounted	3.09
Other stocks and bonds on hand	61.90	Dividends unpaid	3.84
U. S. certificates of deposit	6.74		
Checks and other cash items	14.83	Total demandable debt	1,389.60
Exchanges for Clearing-house	189.22		
Bills of other National banks on hand	17.73	National bank notes outstanding	320.20
Fractional currency on hand . . . . .	.37	State bank notes outstanding . . . . .	.25
Specie on hand	114.33		320.45
Legal-tender notes on hand,	53.16	Entire debt	1,710.05
	185.59		
All of usual resources	1,905.19	<i>Subordinate Accounts.</i>	
Bonds to secure circulation	363.33	Undivided profits	56.37
Bonds to secure United States deposits	15.54	Surplus funds	128.14
Redemption fund (5% of circulation)	16.12		
	394.90	Total surplus	184.51
Total available resources	2,300.18	Capital stock	463.82
Real estate, furniture, and fixtures,	47.33		648.33
Entire resources of all kinds	2,347.51		
<i>Subordinate Accounts.</i>			
Current expenses	6.73	Total credits	2,358.38
Premiums paid	4.14		
	10.87		
Total debits	2,358.38	<i>Subordinate Accounts.</i>	
		From capital and profits	648.33
<i>Ordinary Accounts.</i>		Subtract expenditures	10.87
From assets	2,347.51		
Subtract liabilities	1,710.05	Leaves for stockholders	637.46
Leaves for stockholders	637.46		

SECTION 5. — The United States Treasury.

Statement of Assets and Liabilities of the Treasury of the United States,
October 1, 1881.

Assets.			Liabilities.		
Gold coin	76,610,269	90	Post-office Department acc't	3,582,731	93
Gold bullion	97,751,074	62	Disbursing officers' balances	22,278,303	96
Standard silver dollars	66,092,667		Fund for redemption of notes		
Fractional silver coin	26,313,113	63	of National banks "failed,"		
Silver bullion	2,632,184	67	"in liquidation," and "re-		
Gold certificates	9,600		ducing circulation"	31,152,713	60
Silver certificates	11,559,730		Undistributed assets of failed		
United States notes	27,130,132	07	National banks	399,835	68
National bank notes	4,452,854	59	Five per cent fund for redemp-		
National bank gold notes	98,545		tion of National bank notes,	15,768,662	75
Fractional currency	22,961	72	Fund for redemption of Nat'l		
Deposits held by National bank			bank gold notes	394,847	
depositories	13,412,848	11	Currency and minor coin re-		
Nickel and minor coin	556,423	62	demption account	7,358	25
New York and San Francisco			Fractional silver coin redemp-		
exchange	1,512,000		tion account	87,872	75
One and two year notes, etc.	10	50	Interest account, Pacific Rail-		
Redeemed certificates of de-			roads and L. & P. Canal Co.	4,930	
posit, June 8, 1872	210,000		Treasurer U. S., agent for pay-		
Quarterly interest checks and			ing interest on D. C. bonds	253,795	34
coin coupons paid	176,420	27	Treasurer's transfer checks and		
Registered and unclaimed in-			drafts outstanding	6,059,700	07
terest paid			Treasurer's general account: —		
United States bonds and in-			Interest due and		
terest	2,016,876	70	unpaid \$9,538,247.43		
Interest on District of Colum-			Matured bonds		
bia bonds	1,770	25	and interest 3,004,205.94		
Speaker's certificates	116,916		Called bonds &		
Pacific Railroad interest paid	900		interest 17,832,841.34		
			Old debt 796,488.28		
			Gold certificates, 5,248,920.		
			Silver certific't's, 64,149,910.		
			Cert's of deposit, 8,315,000.		
			Balance, incl'd'g		
			bullion fund 142,501,208.50		
			Total Treas'r's		
			general acc't 251,386,821.49		
			Less unavailable		
			funds 700,274.17	250,686,547	32
	330,677,298	65		330,677,298	65

TREASURY OF THE UNITED STATES,
Washington, D.C., October 1, 1881.(Signed)
JAMES GILFILLAN, Treasurer U. S.

185. The United States government is its own banker in the Treasury system. The Treasury is so closely connected with the National Banks that a statement of its condition on the same date with that of the Bank Summary is valuable for comparison. The Assistant Treasurer at New York is a member of the Clearing-House there, and almost invariably its debtor. During fifteen months, ending with September, 1881, the Treasury paid into the House, in coin, the net sum of \$339,798,060.72, or nearly 340 millions of dollars, in settlement of balances against it.

The **Summary** of all the National banks is of the same character as the statement of one bank. There were in the Union, on May 31, 1881, banking institutions and private bankers as follows; viz., —

BANKS.	No.	Capital.	Deposits.
		Millions.	Millions.
National Banks	2,115	\$460.2	\$1,139.9
State and Private Banks	4,016	206.5	627.5
Savings Banks with Capital	36	4.2	37.6
Savings Banks without Capital	629	—	862.3
Totals	6,796	\$670.9	\$2,667.3

CHAPTER XXIV.

SECTION 1. — The Bank of England.

186. A **return** of the condition of the Bank of England is published every Thursday, and a copy of the nearest date to that of the United States National Bank Summary is given for convenience of comparing the two systems. The Bank is the fiscal agent of the British government; it receives all the government income, disburses the public expenditure, the interest on the public debt, etc., for which it is paid a stated sum per annum. It is compelled by law to buy all gold bullion offered it, at the rate of £3, 17s. 9d. per ounce of 22 carats fine, issuing its notes in payment, and to redeem the notes in sovereigns whenever presented. The mint price of gold is £3, 17s. 10½d., but it is more profitable for sellers of gold bullion to dispose of it at the Bank price than to wait their turn at the mint for its coinage. It has a monopoly of the issue of bank notes in England; and, in addition to notes issued for bullion, it also issues notes to the sum of £15,750,000 sterling, which are based upon interest-bearing government

securities. The notes are made a legal tender by law so long as they are instantly redeemed in gold. The Scotch banks issue notes of their own, but there are many large joint-stock banks in England which have no circulation.

The coin reserve of the English banks is practically held by this one bank, and the settlements of the London Clearing-House are made by bankers' checks upon it.

ISSUE DEPARTMENT.

In the Issue Department the **notes issued** are those in circulation and owned by the holders of them; the item also includes the notes in the Banking Department held in reserve as office notes for use. The **government debt** is due from the English government to the Bank; it began in 1694, and was at first the sum of £1,200,000. It has increased to the sum of £11,015,100, which figures have appeared in the weekly reports without change since 1845. The **other securities** are first-class interest-bearing bills, bonds, etc., approved by the directors; the sum is usually the difference between the government debt and £15,000,000. Together with the debt it now makes the sum of £15,750,000, for which notes are issued beyond the amount of metal in the bank. The **coin and bullion** is held as a special deposit for the security of notes in circulation.

BANKING DEPARTMENT.

The **proprietors' capital** is the sum of the stock held by private owners. **Rest** is the surplus or difference between assets and liabilities. The **public deposits** are the national revenues in the departments enumerated, which are paid into the bank as fast as collected. The **other deposits** are those of other banks, bankers, and private depositors. The **seven-day bills** are for £10 and upward, issued without charge for exchange. The bank has a week's use of the money paid for them. The custom began in 1738, because of mail robberies, in order to allow time for notice of loss. The **government securities** are consols, exchequer bills, treasury bonds, etc., for the payment of which the government is responsible. The **other securities** are foreign government stocks, railway bonds, first-class mercantile bills, etc. The **notes** are office notes in readiness for paying out. The gold and silver coin and the notes, in the banking department, make the **banking reserve**.

The **old form** was in use previous to the Act of 1844. The **circulation** consists of **notes issued** added to **seven-day bills**, less **notes** in the banking department, which, not being yet paid out, are not in circulation. The **securities** are the total of the government debt, and securities in both issue and banking departments, less the sum of proprietors' capital. The coin and bullion is the total in both departments; other items are the same in each form.

THE BANK OF ENGLAND RETURN.

An Account pursuant to the Act 7th and 8th Victoria, cap. 32, for the Week ending on Wednesday, the 28th day of September, 1881.

ISSUE DEPARTMENT.

Notes issued	£37,945,445	Government debt	£11,015,100
		Other securities	4,734,900
		Gold coin and bullion	22,195,445
		Silver bullion	
	£37,945,445		£37,945,445

BANKING DEPARTMENT.

Proprietors' capital	£14,553,000	Government securities	£14,512,549
Rest	3,746,405	Other securities	21,585,220
Public deposits, including Ex- chequer, Savings Banks, Com- missioners of National Debt, and dividend accounts	5,076,209	Notes	11,634,910
Other deposits	24,961,655	Gold and silver coin	878,781
Seven-day and other bills	269,191		
	£48,606,460		£48,606,460

Dated September 29, 1881.

(Signed) FRANK MAY, *Chief Cashier.*

THE OLD FORM.

The above bank accounts would, if made out in the old form, present the following results:—

LIABILITIES.	ASSETS.
Circulation (including bank post bills)	Securities
Public deposits	Coin and bullion
Private deposits	
£56,617,590	£60,363,995

The balance of Assets above Liabilities being £3,746,405, as stated in the above account under the head REST.

CHAPTER XXV.

SECTION 1. — Promissory Notes.

187. Promissory notes, drafts, and bills of exchange are evidences of debt which are used by merchants as substitutes for money, and by means of which they transfer, exchange, or liquidate their indebtedness. They may be issued by private persons, and by corporations, towns, counties, and governments, through their proper officers. The **bonds** of corporations or governments are, in effect, their promissory notes, issued by authority of law, and are intended to be sold in order to raise money for some specific purpose. They are commonly payable to bearer, and transferable by delivery. **Coupons** are tickets printed on the margin of a bond, to be cut off and presented as they mature, which entitle the holder to the interest on the bond for a definite portion of its term. Certain issues of United States Treasury notes are, by law, made a legal tender for all debts except duties on imports and the interest on the public debt, and therefore pass current as money. The law also prescribes and regulates the issue of National Bank notes, which have a kind of credit, so that they circulate for, and are treated as, money, but nevertheless are subject to the laws and rules governing other promissory notes.

A **promissory note** is an absolute and unconditional contract to pay a fixed and definite sum of money at a future time. When no time is stated in the note it is considered to be payable on demand. Two qualities are essential in notes: *first*, they must be payable **at all events**, and not subject to any contingency; *second*, they must be for the payment **of money only**, and not for bank-notes or any other substitute for money, although, in practice, some such substitute may be accepted for them.

A **draft or bill of exchange** is a written order, as from Brown directing Wales to pay a definite sum of money to Gerry. Brown is called the drawer, Wales is the drawee, and Gerry the payee. Wales, after having accepted the draft by writing the word "Accepted," together with his signature, across its face, becomes the acceptor or promissor, and the paper is then his acceptance or promissory note.

Notes are either negotiable or non-negotiable; a **negotiable note** is one that can be transferred by delivery if written to bearer, or by indorsement and delivery, if written to order. United States Treasury notes, National Bank notes, and many issues of government and other bonds, are payable to bearer and transferable by delivery. Some issues of bonds, and most drafts and promissory notes, are written

“to order,” and are transferable by indorsement and delivery, and all such papers are commonly negotiable.

A note written “payable to John Brown” is not negotiable, and must be written “to John Brown or order,” or “to John Brown or bearer,” to make it so. A draft is not negotiable unless it is written payable to some person or order or bearer or to assigns. A note payable in any specific article other than money, as in “bushels of wheat,” is not negotiable, nor is it so even if written for some definite sum of money, if payable in goods. An acknowledgment of a debt without a promise to pay, as “I owe you fifty dollars,” is not negotiable; but such papers may be assigned. A promise to pay without stating to whom is of no value.

Notes should be written clearly, and properly dated both as to time and place. When no time and place of payment are stated in the note, it is considered to be on demand, and payable at the maker’s residence or usual place of business. In case of doubt as to the sum for which a note or draft or check is written, the words in the body of it govern as to the amount, and not the figures. A note does not bear interest unless it is so stated in it. A note beginning “We promise,” and signed by two persons, is a joint note only; but a note beginning “I promise,” and signed by two persons, is a joint and several note. The place where a note is to be paid should be written in the body of the note and not on the margin. Notes and drafts are usually written on paper, but any other material capable of circulation may be used; and they may be written in any language, and with ink or pencil, and signed and indorsed with a mark if necessary; nor is any precise and unvarying form of words essential in a note, for it is sufficient if it expresses an absolute contract to pay a certain and definite sum of money.

A note signed by a minor, or by an insane or intoxicated person, or upon Sunday, or obtained by fraud, is void and uncollectible. If a note is dishonored or unpaid, the debt or consideration for which it was given revives.

Notes may be **secured** by the mortgage of real estate or other property, or by the pledge of property as collateral; but the surrender of the mortgaged property or abandonment of the collateral does not release the maker of the note, if the proceeds of a sale of the surrendered property are insufficient to pay it, and he is bound to make up the difference.

To indorse is to write one’s signature across the back of a note, draft, or check. An indorsement is said to be in blank, when it consists of the signature only; or in full or special, when an indorsee’s name is added, as “Pay to Peter Ripley or order, Duncan & Co. ;” or restrictive, when some purpose is expressed, as “Pay only to H. Lonsdale, cashier, for collection, Wentworth & Co. ;” or qualified,

when the indorser's liability is limited or restrained, as "Without recourse to us, Watson & Gibbs."

A note **indorsed in blank** is transferable by delivery, and is the property of the holder who comes by it honestly and in good faith; and a person selling such a note without his own indorsement, while not liable for the solvency of the maker of the note, nevertheless warrants to the buyer that he has an honest right to sell it, and that the note is genuine, and not forged or altered. Each indorser in blank, or in full, becomes liable to all subsequent holders of a note, and may be sued if the maker fails to pay it. The liability of the **drawer** of an accepted draft is the same as that of the first indorser of a note.

It is the **duty of the holder** of an indorsed note to make a demand for payment when it becomes due, and to cause it to be protested if not paid. This is necessary in order to legally notify the indorsers that a demand has been made upon the maker of the note, and that in default of his payment, recourse will be had to them.

The **holder** must use due diligence in demanding payment, and notice of non-payment must be given to previous indorsers, or the drawer of a draft, on the last day upon which it becomes due, either of grace or of its term, as the case may be.

The **theft or loss** of a note does not release the maker, who must pay it if the consideration and amount can be proved.

The **maker** of a note or acceptor of a draft is entitled to three days of grace after its term has expired, and to the usual hours of business upon the last day of grace in which to pay it; but it may be written "without grace," in which case it becomes due on the last day of its term. The phrase "after sight," in a draft, means legal sight; that is, after acceptance, or protest for non-acceptance. The laws and customs, as to grace on sight drafts, vary in the different States.

SECTION 2. — Expiration of Notes and Drafts.

188. When the time of a note or draft is stated in **days**, the actual number of days, excluding the day of date or acceptance, is counted; thus, 90 days from March 15 expire on June 13. Calendar months are understood when the time of a note is written in **months**, and three **months** from March 15 expire on June 15; but 60 days from Jan. 15 expire on March 16, and 30 days from Feb. 15 expire on March 17, in common years, and one date earlier in leap-years; while two months and one month from Jan. 15 and Feb. 15, respectively, expire on March 15.

It is customary to allow three days of grace in addition to the stated time of **negotiable** notes and drafts, but not upon demand notes, nor upon such notes as are non-negotiable. Notes dated on the 28th, 29th, 30th, or 31st day, written for

months, and falling due in February, are all payable on the same days, Feb. 28 and March 3, in common years; but in leap-years a note dated the 28th will be due one date earlier, or Feb. 28 and March 2. A note dated Feb. 28, at six months, falls due Aug. 28 and 31; but by advancing the date one day, to March 1, it would be payable Sept. 1 and 4, thus giving the maker four days more time.

Notes written for **months**, and expiring near the close of the month, are due as follows, when the **final month** has 28, 29, 30, or 31 days:—

Date.	28-day Month.	29-day Month.	30-day Months.	31-day Months.
	FEBRUARY.	FEBRUARY.	APRIL, JUNE, SEPT., and Nov.	JAN., MARCH, MAY, JULY, AUGUST, OCT., and Dec.
25th	Feb. 25 and 28 Feb.	Feb. 26 and 29 Feb.		
26th	" 26 " 1 March.	" 27 " 1 March.	day 27 and 30 day	
27th	" 27 " 2 "	" 28 " 2 "	" 28 " 1 "	day 28 and 31 day
28th	" 28 " 3 "	" 29 " 3 "	" 29 " 2 "	" 29 " 1 "
29th	" 28 " 3 "	" 29 " 3 "	" 30 " 3 "	" 30 " 2 "
30th	" 28 " 3 "	" 29 " 3 "	" 30 " 3 "	" 31 " 3 "
31st	" 28 " 3 "	" 29 " 3 "	" 30 " 3 "	" 31 " 3 "

A demand for the payment of a note must be made upon the last day of grace, and if that falls upon Sunday or a legal holiday it must be made upon the business day next preceding it. If a legal holiday falls on Saturday or Monday the note must be paid or the demand must be made upon the preceding Friday or Saturday respectively.

CHAPTER XXVI..

SECTION 1. — Money and Exchange.

189. PRECEDING the consideration of the subject of money and exchange come the general topics of labor, exchange of services and commodities, values in exchange, wealth, etc., leading to the necessity for money as a medium by which exchanges are consummated equitably to all parties. These matters are more properly within the domain of Political Economy, and the student desiring a full knowledge of them is referred to the writings of the numerous authors upon that subject. With money as a convenience of commerce the accountant must necessarily become familiar.

The qualities essential in money are, *first*, **stability** or fixedness in value; *second*, **uniformity** in quality; *third*, **divisibility** into parts and retention of value in any form, whether cut, hammered, or melted; *fourth*, **portability**, or a small bulk with a large value; *fifth*, **universal diffusion** and **recognition** throughout the world.

After many trials of various materials, the nations of the world have fixed upon and adopted the commodities gold and silver as best fulfilling these requirements. These metals, in the crude state, vary in quality, and they require melting, refining, and shaping into forms convenient for use. A private guarantee of weight and quality would lack the authority of a lawful public certification, and therefore the coinage is made a government function. The coinage stamps of the United States government upon a gold eagle, for example, are its seals certifying that it weighs 258 grains Troy, is made of nine parts of pure gold to one part of alloy, and is equivalent to the sum of ten dollars United States money, gold standard. If the coin be cut or melted without loss of parts, its value is the same; but it would have to be re-determined by weight and assay. Coinage saves the repeated weighing and assaying which would be necessary without it.

The Act of Congress of Feb. 12, 1873, defines and establishes the **standard unit of value** in the coinage to be $25\frac{8}{10}$ grains of gold, nine-tenths fine, as in the gold dollar. The United States coinage of gold and silver consists of nine parts of pure metal to one part of alloy, which is added to harden it and resist wear. The alloy is all of copper in recent coinage, and is counted as of no value. $25\frac{8}{10}$ grains of United States standard gold coin contain $23\frac{22}{100}$ grains of pure gold ($25.8 - 2.58 = 23.22$). The value of the metal from which a coin is made is not and cannot be established by law, but exists because of the labor of procuring it. The law fixes the quantity and quality of gold which shall constitute and be called a dollar, just as it determines the cubical capacity of the vessel the contents of which shall constitute and be called a bushel.

The English **sovereign**, the French **franc**, the German **mark**, the American **dollar**, and other monetary units of the various nations, are monetary terms established by laws which declare that these units shall consist of certain specified weights of pure gold. In terms of Troy weight the sovereign consists of 113.0016 grains, the franc of 4.479+ grains, the dollar of 23.22 grains, of fine or pure gold, and their values are therefore in the ratio of these weights to each other. The English pound sterling is not coined under that name, but the coin equivalent to it is the gold sovereign of 22 carats fine, 24 carats being pure. The sovereign weighs 123.27447 Troy grains of gold $\frac{11}{12}$ fine, which is equal to 113.0016 grains of pure

gold; dividing this by the pure gold in the dollar (23.22 grains) the quotient obtained is 4.8665, which is the exact value of the sovereign in United States standard gold dollars. The values of the several foreign standard coin units in the United States coinage are estimated by the Bureau of the Mint, and proclaimed annually on the first of January. (See page 212.)

The Act of Feb. 12, 1878, authorizing the present standard silver dollars, of $412\frac{1}{2}$ grains, "which shall be a legal tender at their nominal value for all debts, except when otherwise stipulated in the contract," looks to a conference with the governments of the so-called Latin-Union States "to establish the use of bi-metallic money and secure a fixity of relative value between gold and silver;" but the issue of such conference remains indefinite. It is a known law of trade that an inferior and superior money cannot circulate together; the inferior or cheaper money will drive out the superior.

The subsidiary silver coins, or fractions of the dollar, are less in proportionate weight than the silver dollar, being in the ratio of $385\frac{8}{10}$ grains (or 25 grams metric) to the dollar; the difference between their actual bullion value and their face or stamped value is retained by the government as a **seigniorage** or charge for coinage, the half dollar containing not far from 42 cents' worth of silver at present rates; they are intended merely for the convenience of the people, are legal tender, and redeemable in standard gold for not over ten dollars. These restrictions are intended to keep them in circulation and prevent their being worth a premium.

The **exchange** of quantities of gold and silver is attended with costs of transportation and risks of loss, which render it advisable to send orders to pay gold rather than to send gold itself. An order for coin is more convenient than the coin itself, provided the latter is forthcoming at the place of payment. The convenience of the use of drafts between merchants led to the invention of the bank-note, or paper currency, which is a good substitute for specie, provided there is a fund of the latter with which to redeem it. A **bank-note**, although treated as cash, is not money in reality, but is the promissory note of a banking corporation, binding itself to pay the bearer a definite sum in lawful money on demand. **Promises to pay** differ as essentially from coin as a title-deed differs from the land to which it conveys ownership. The bank-note is the title-deed, the coin is the substance or thing specified.

All the **exchanges of commerce** are made between individuals, whether of the same or different nations, and all are, ultimately, exchanges of products, although they are made by means of money and credit. The products of one nation are, in reality, exchanged for those of another trading with it. The Chicago grain

merchant, who exports grain to Liverpool, makes a draft against it, which is bought by the dry-goods merchant and sent to England in payment for the dry-goods which he has imported; the two commodities are thus exchanged for each other. The margin of difference in amount has to be paid in some way, and the small differences in many imports and exports causes the ebb and flow of specie in settlement of balances. The metal gold is **international money**, recognized and current everywhere, and its principal office is to pay the balances between different debts in divers countries. The settlement with gold of the final balance of a series of transactions is equivalent to the passage of gold for each.

The term **exchange** is applied to the kind of transaction by which a merchant in one place pays his debt in another place without sending actual money. For example, A in Boston may send a cargo of oil to B at Antwerp; C in Boston may owe D in Brussels for laces, etc., which he has imported; A has exchange for sale on Antwerp, which he may draw against the value of the oil; C has occasion to buy exchange in order to pay his debt at Brussels, and so can use A's draft on Antwerp. A is the **drawer** of the draft; B is the **drawee**, or person on whom it is drawn; C is the **remitter**, or person who sends it to D at Brussels, to whose order he indorses it, and it may pass through a bank or the hands of other merchants before it reaches B at Antwerp, who finally pays it, and charges it to the account of A; and the oil and lace, to the extent of their values, are exchanged for each other. The drawer and each indorser are responsible to the subsequent indorsers for the payment of the draft.

The **true par** of exchange is the value of the standard coin unit of one country estimated in the coinage of another. The premium or discount upon drafts is called the **course of exchange**, and depends upon the relative values of imports and exports between two countries. If New York is in debt to London, then exchange on London is at a premium in New York; but if London owes New York, then exchange on London is at a discount in New York. Payments for merchandise imported into the United States are made by drafts against merchandise exported abroad, and when these do not offset each other the difference is shown by the difference in demand, which causes an advance or decline of the rate of exchange. The rate between the United States and foreign countries can never vary much from the cost of transporting coin between them, for it is plain that if the price of exchange is higher than the cost of shipping gold, the home or foreign merchant will save money by sending the coin itself in payment. **Foreign drafts** are negotiated through bankers who make it a specialty of their business, and these drafts finally come for settlement to London, which is the principal clearing-house of the world.

**Estimate of the Values of Foreign Coins proclaimed by the Secretary
of the Treasury, January 1, 1883.**

Country.	Monetary Unit.	Standard.	Value in U. S. Money.	Standard Coin.
Argentine Repub.	Peso	Gold and Silver,	\$0.965	Peso and argentine.
Austria	Florin	Silver . . . . .	.401	
Belgium	Franc	Gold and Silver,	.193	5, 10, and 20 francs.
Bolivia	Boliviano	Silver . . . . .	.812	Boliviano.
Brazil	Milreis of 1000 reis,	Gold . . . . .	.546	
British Poss'ions in N. America .	Dollar	Gold	1.00	
Chili	Peso	Gold and Silver,	.912	Condor, doubloon, and escudo.
Cuba	Peso	Gold and Silver,	.932	¼, ½, and 1 doubloon.
Denmark	Crown	Gold . . . . .	.268	10 and 20 crowns.
Ecuador	Peso	Silver . . . . .	.812	Peso.
Egypt	Piaster	Gold . . . . .	.049	5, 10, 25, 50, and 100 piasters.
France	Franc	Gold and Silver,	.193	5, 10, and 20 francs.
Great Britain . .	Pound sterling . .	Gold	4.8665	½ sovereign and sovereign.
Greece	Drachma	Gold and Silver,	.193	5, 10, 20, 50, and 100 drachmas.
German Empire .	Mark	Gold . . . . .	.238	5, 10, and 20 marks.
Hayti	Gourde	Gold and Silver,	.965	1, 2, 5, and 10 gourdes.
India	Rupee of 16 annas,	Silver . . . . .	.386	
Italy	Lira	Gold and Silver,	.193	5, 10, 20, 50, and 100 lire.
Japan	Yen	Silver . . . . .	.876	1, 2, 5, 10, and 20 yen, gold, and silver yen.
Liberia	Dollar	Gold	1.00	
Mexico	Dollar	Silver . . . . .	.882	Peso or dollar, 5, 10, 25, and 50 centavo.
Netherlands . .	Florin	Gold and Silver,	.402	
Norway	Crown	Gold . . . . .	.268	10 and 20 crowns.
Peru	Sol	Silver . . . . .	.812	Sol.
Portugal	Milreis of 1000 reis,	Gold	1.08	2, 5, and 10 milreis.
Russia	Rouble of 100 co- pecks	Silver . . . . .	.65	¼, ½, and 1 rouble.
Spain	Peseta	Gold and Silver,	.193	5, 10, 20, 50, and 100 pesetas.
Sweden	Crown	Gold . . . . .	.268	10 and 20 crowns.
Switzerland . .	Franc	Gold and Silver,	.193	5, 10, and 20 francs.
Tripoli	Mahbub of 20 pias- ters	Silver . . . . .	.733	
Turkey	Piaster	Gold . . . . .	.044	25, 50, 100, 250, and 500 piasters.
United States of Colombia	Peso	Silver . . . . .	.812	Peso.
Venezuela	Bolivar	Gold and Silver,	.193	5, 10, 20, 50, and 100 Bolivar.

The values of the silver units are based upon the average price of silver bullion for the last quarter of 1882, which is 51.227 pence per Troy ounce, British standard (.925 fine), or 112.295 cents per ounce, *fine*. At this price, United States silver coins compare with the gold dollar as follows:—

	Standard.	Alloy.	Fine.	Equivalent in Gold Dollar.
The silver dollar	grains 412.50 —	41.25 =	371.25 =	\$ 0.8685316+
Two half-dollars	" 385.80 —	38.58 =	347.22 =	0.8123139+
Price per grain, fine	\$ 0.00233947+	×	24.03 =	\$ 0.0562176+

or, in other words, the foreign silver units, estimated at 81.2 cents, are equivalent in weight and fineness to two United States half-dollars, or 25 grams (metric), nine-tenths fine.

CHAPTER XXVII.

SECTION 1. — Foreign Invoices.

190. Goods bought in a foreign country are invoiced to the buyer in the weights, measures and currency of the place where they are bought. The invoices are certified by the resident American consul as being the current market prices at that time and place. Manifests and invoices must be presented at the Custom-house where they are imported, and the goods, or a sufficient sample, are there examined and appraised. Duties are paid in accordance with the special tariff relating to the article. A **specific** duty is a certain rate per quantity; an **ad valorem** duty is a percentage upon the foreign value of the goods. Duties, charges, freight, insurance, etc., together with the rate of exchange, are to be considered in estimating the cost of imported goods. The following examples, worked out, will show the manner of obtaining results.

Example 1.

Invoice of raisins shipped by the undersigned, per English steamer "Castalia," Captain Hurd, bound for Boston; it being by order, for account and risk, of Messrs. W. L. Hooper & Co., of said place, and consigned to Messrs. Baring Bros. & Co.

S.A.P.	200 boxes finest loose Muscatels,	@ Reals	^{F.O.B.} 44	8,800.00
	200 quarters finest loose Muscatels,		12	2,400.
4				Reals 11,200.00
Crowns.	Malaga, 9 October, 1882,	EDWARD LORING.		\$560.00

Reimbursement:—

Invoice <i>ut supra</i> ,		\$560.	
Bill brokerage, 2%,	1.10		
Bill stamp,	.20	1.30	\$561.30
At exchange 47.55 pence per dollar (Spanish) =			<u>£111 4s. 2d. sterling.</u>

Cancelled by my draft of to-day, @ 90 d./dt. on Messrs. Baring Bros. & Co., London.

The freight is 50/- per ton, and 10% primage; 90 whole boxes make a measurement ton, or 40 cubic feet, in reckoning freight; whole boxes weigh 22 lbs., half boxes 11 lbs., and quarter boxes 5½ lbs. net; there is a specific duty of 2½ cents per lb. Ins. 1%, on \$5.35 per £ sterling.

Required the proportionate cost of the goods, duty paid, landed in Boston, at exchange \$4.84 per pound sterling.

Statement of an Invoice, for Importation from England, in sterling money, showing Charges for Transportation, Commission, Exchange, Duties, etc., Reduction to United States Currency, and manner of reckoning Cost at place of Importation (Boston).

London, *April 3,* 1882.

Messrs. Abel Scott & Co.

Bought of JOHN WILLS & Co.

<div style="border: 1px solid black; padding: 2px; display: inline-block;"> A S B </div>	1. 150 doz. Cotton Hose	@ 5/2	£ 38 15 0	
	2. 150 " " "	@ 5/2	38 15 0	£ 77 10 0
	2 Cases	@ 13/-		1 6 0
				£ 78 16 0
	Discount for Cash, 2½%,			1 19 4
				£ 76 16 8
	Consul's Certificate,			14 10
				£ 77 11 6

(Custom-house Form.)

INWARD FOREIGN ENTRY of Merchandise imported by Abel Scott & Co., in the *Palmyra*, James P. Smith, Master, from *Liverpool*; arrived *April 20*, 1882.

Marks,

A
S
B

; Numbers, inclusive, 1 to 2; Packages and contents, 2 cases of Cotton Hose;

(Additional by law.)* * Abolished by Congress in 1883.	Duty, 35%; Amount of invoice,	£ 76 16 8	
	Inland shipping charges,	3 0	£ 76 19 8
	Commission, 2½%,		1 18 4
	Dutiable amount,		£ 78 18 0

Equal to \$384. (In practice, cents under 50 are rejected, and amounts stated in even dollars.)

COST.

Duties paid, £ 78 18 0, @ \$4.8665 to the pound sterling = \$384	@ 35%	\$134.40
Insurance, ½%,		1.92
Freight and charges, £ 1 9 6, @ \$5 to the pound sterling,		7.37
Custom-house charges, {	Permits, \$0.60	
	Carting .50	
	Brokerage, 2.	3.10
Exchange, £ 77 11 6, @ \$4.90 to the pound sterling,		380.14
Cash cost, duty paid, in Boston: 300 doz. Hose @ \$1.7564 per doz.,		\$526.93

£ 77 10 0 = 18,600 pence) \$526.93 (.028329 cents to the penny;
5 2 = 62 " × .028329 cts. = \$1.7564 per doz., cost of hose in Boston.

This mode of reckoning is of use when there are several articles at different prices in the same invoice.

To reduce Shillings and Pence to Decimals of the Pound: 1s. = ¼ £, and 5 × 20 = 100; therefore multiply the shillings by 5, and call the product hundredths. 1d. = ¼ £, and 4½ × 240 = 1000; therefore multiply the pence by 4½, and call the product thousandths.


Required the Decimal of the pound sterling equal to 19/9. 19 × 5 = .95; and 9 × 4½ = .0875; and .95 + .0875 = .9875 of a pound sterling, Ans.

**Statement of an Invoice in Reichmarks, for Importation from
Germany.**

Chemnitz, Saxony, *April 24,* 1882.

Messrs. Waldo, Hill & Co.


Bought of MEYER & Co.

	106.	91 doz. Cotton Hose @ Rmk. 9.00		819.00	
		9 " " " @ 9.		81.00	
	107.	41½ " " " @ 7.05		292.60	
		99 " " " @ 9.		891.	1264.60
		Discount for Cash, 4%			83.30
		(Charges for cases, wrappers, etc., included in prices of goods.)			2000.30
		Add Consul's fee,			11.70
		Due, net cash, in Chemnitz, April 24, 1882,			<u>Rmk. 2012.00</u>

(The form of Custom-house blank is in columns.)

IMPORTED INTO THE PORT OF NEW YORK, in the *Salier*, from *Bremen*, arrived *May 15*, 1882.
Entered for transportation under Form A.

INWARD FOREIGN ENTRY of Merchandise imported by *Waldo, Hill & Co.*, in the *Neptune*,
from *New York*, *May 19*, 1882.

Marks,  ; Numbers, inclusive, *106 and 107* ; Packages and contents, *2 cases of Cotton Hose* ; Duty, *35%* ; Dutiable amount, *Rmk. 2069.90*, equal to *\$493*. (Memorandum. — Amount of invoice, *2000.30* ; Inland charges, *19.10* ; add Commissions, *2½%*, *50.50* ; Total dutiable amount is *Rmk. 2069.90*, equal to *\$493*.) (One reichmark equals *23⁸/₁₀* cents, even amounts taken.)

COST.

Duties paid on \$493 @ 35%		\$172.55
Insurance, \$2.80 ; Freight, \$10.70 ; Inland charges, \$4.75 ; New York charges, \$3.60,		21.85
Custom-house charges and brokerage, Boston, \$2.60 ; Carting, \$1,		3.60
Exchange,	Rmk. 2012.	
Add 1 month 15 days' interest,	15.10	Rmk. 2027.10 @ 24 cents to reichmark,
Cash cost of invoice in Boston,		<u>\$684.50</u>

Rmk. 2063.60) \$684.50 (.3285+ cents to reichmark cash.

199 doz.	@	Rmk. 9.00	or	\$2.9565+	=	\$588.35	
41½ "	@	7.05	or	2.316+	=	96.15	= \$684.50

Statement of an Invoice in Francs, for Importation from France.

(Mixed Invoice, or at different rates of duty.)

Paris, *April 3,* 1882.*Messrs. Tobias Oakman & Co.**Bought of DREVET & OURDEL.*

T. O. & Co.	100.	537 doz. Silk Mitts	@ Fr. 13.50	7249.50			
		Discount, 10%,		724.95	6524.55		
	101.	50 " Shirts & Drws.	@ 29.45	1472.50			
		Discount, 2%,		29.45			
				1443.05			
		Discount, 2%,		28.85	1414.20	7938.75	
		Commission, 3%,				238.15	
		Paper, 12.30; Labels, 6.50; Inland carriage, 6.80; Cases, 32.50			58.10	8235.00	
		Consul's fees,				13.	
		Due, net cash, in Paris, April 3, 1882,				Fr. 8248.00	

APPORTIONMENT OF DUTIES.

100. Silk Mitts.				101. Shirts and Drawers (Cotton).			
Net amount of invoice,		6524.55		Net amount of invoice,		1414.20	
Proportion of charges:—				Proportion of charges:—			
Paper, 10.; Labels, 2.50; Cases, 25.;				Paper, 2.30; Labels, 1.; Cases, 7.50;			
Inland carriage, 6.40,		43.90		Inland carriage, 3.40,		14.20	
Charges to Liverpool,		13.85		Charges to Liverpool,		13.85	
		6582.30				1442.25	
Add 3% commission,		197.46		Add 3% commission,		43.26	
Dutiable amount,		Fr. 6779.76		Dutiable amount,		Fr. 1485.51	
Equal to \$1309. Duty, 60%.				Equal to \$236. Duty, 35%.			
Cost.				Apportionment of Cost.			
Duties paid, \$1309.	@ 60%,	\$785.40		\$100.	\$101.		
" " 286.	@ 35%,	100.10		\$785.40		\$100.10	
Insurance, 1/2%,		7.98		6.54		1.44	
Freight and charges paid,		16.25		8.12		8.13	
Custom-house charges and carting,		2.20		1.10		1.10	
Exchange for francs, 8248.							
One mo.'s int. added, 41.24							
		8289.24 @ 5.14	1612.68			1323.84	238.84
Cash cost of \$100 and \$101, duty paid, \$2524.61				\$2125.		\$399.61	
537 doz. @ \$3.95709+	=	\$2125.		Net invoice, 8235.	\$100, 6779.76		
50 " @ 7.9014	=	390.61		Add charges to L'pool, 27.70			
		\$2524.61		3% on 58.10+27.70=85.80, 2.57	\$101, 1485.51		
				Total dutiable am't, Fr. 8265.27	Fr. 8265.27		

French Invoice (mixed rates of Duties).

Paris, *Nov 14,* 1882.*Messrs. Hall & Wheeler,**Dr. to* BELLOT ET FILS.

H. & W.	\$ 1/5	5 cases, 100 tins each, Petit Pois,	@ Fr 75.	375.			
B.	6/15 10	" " " Haricots Verts,	95.	950.			
	16/17 2	" " " Champignons,	125.	250.	1575.		
		Discount, 5%,			78.75	1496.25	
		Commission, 3%,				44.90	
		Inland Shipping Charges (Paris to Havre),				70.85	1612.00
		Consul's Certificate,					13.
							<u>Fr 1625.00</u>

APPORTIONMENT OF DUTIES.

Entire invoice, fr 1612; add 3% on fr 70.85 = 3.20 = fr 1615.20 dutiable.

In finding the ratio of charges on each article, or the gross sum at each rate of duty, make a proportion as follows; thus, — on Petit Pois, 1575 : 375 :: 1615 : 384.50.

Invoice.	Dutiable.	Duty, ad valorem. ¹	Extract from Bill of Lading.
Petit Pois . . 375.	384.50 = \$74.	@ 20% = \$14.80	17 cases, each 3 ft. 6 in. = 59 ft. 6 in.
Haricots . . 950.	974.30 = 188.	35% = 65.80	@ 32/8 per ton measurement,
Champignons. 250.	256.40 = 49.	50% = 24.50	= £2 8 4
fr 1575. fr 1615.20	Total duties, \$105.10		10% primage, 4 10 £2 13 2
			Fr'ght, at ex. 4.85 = \$12.89
			Wharfage, @ 4 cts., .68 \$13.57

¹ These rates of duties are assumed, and not actual.

APPORTIONMENT OF COSTS.

In reckoning costs, find first the invoice cost per franc; thus, — fr 1575 cost \$313.70, or \$0.1992 per franc.

	Total.	Petit Pois.	Haricots.	Champignons.
Exchange remitted, fr.1625, @ 5.18 to \$1,	\$313.70	\$74.70	\$189.20	\$49.80
Duties paid,	105.10	14.80	65.80	24.50
Freight paid, @ 80 cts. per case,	13.00	4.	8.	1.00
Insurance, 1% on 23 cts. per franc, ²	3.74	.89	2.28	.59
Cartage, 10 cts. per case,	1.70	.50	1.	.20
Net cost of invoice in Boston,	<u>\$437.84</u>	<u>\$94.89</u>	<u>\$266.26</u>	<u>\$76.69</u>
Average cost per case,		\$18.98	\$26.62	\$38.35

² Marine insurance is effected by the importer on an increased valuation of the currency unit of the invoice, so that in case of loss a profit may be realized from the risk.

A French Account Current.

Dr. Messrs. Duncan, Barker & Co., of Boston,
their Account Current, September 30, 1882,
with Galiani Freres, Paris, France. Cr.

Francs.		Date.	Dys.	Nos.	Francs.		Date.	Dys.	Nos.
		1882.					1882.		
5375.10	Dr. Balance,	April 1	183	9,836	5000.00	Remit on Paris,	Apr. 11	173	8,650
2319.	Invoice,	Mar. 31	184	4,267	10000.	" " "	June 9	114	11,400
3165.	"	Apr. 15	169	5,349	10000.	" " "	Sept. 2	29	2,900
63.90	Expenses,	" 9	175	112					
86.20	"	" 23	161	138					22,950
8940.	Invoice,	June 4	119	10,639					
241.40	Expenses,	" 18	105	253		Bal. of numbers,			8,688
3336.	Invoice,	Aug. 31	31	1,034					
62.90	Expenses,	Sept. 17	14	10					
23589.50				31,638					31,638
144.80	Int. on bal. of	Nos.							
23734.30	(8688) @ 6%								
1265.70	Balance in their favor.								
25000.00					25000.00				
					1265.70	Creditor balance.			

C. C.

Galiani Freres

This computation is shortened by rejecting the two right-hand figures of each product. The balance of numbers is divided by six. The interest falls upon the same side with the balance of numbers (debit in this case), and is equal to the interest for 868,800 days upon one franc; or, pointing off three places, to the interest for 868.8 days upon 1000 francs. In six days 1000 francs gain one franc interest, and will therefore gain 144.80 francs in 868.8 days.

An English Account of Sales.

This account of sales is a return for a shipment of fresh meat to Scotland; it will illustrate the use of drafts with bills of lading. The live cattle are paid for in Kansas by the proceeds of a draft, with bill of lading attached, upon Chicago, where they are slaughtered. Bills of lading for the dressed meat shipped east are accompanied by a draft upon Boston, and the shipment per steamer to Liverpool or Glasgow is drawn against, in sterling, upon London. The latter draft is sold to a Boston banker, who in turn draws against it in favor of merchants who want foreign exchange.

Account of Sales of Beef and Mutton, ex Steamship "Nestorian," by Young & McQuade, of Glasgow, for account of Swift Brothers & Co., Boston; viz., —

644 quarters of beef, —				CHARGES.	
1 quarter,	154 lbs.,	dmgd, @ 3½	2 8 2	Freight,	337 10 0
47 quarters,	8,133 "	4	135 11 0	Clyde dues,	7 10 0
260 "	46,329 "	4½	820 8 2	Landing dues,	3 15 0
187 "	30,871 "	4½	578 16 7	Meat-market custom,	8 18 3
495 fores,	85,487 "			Cartage from harbor,	4 4 0
6 quarters,	1,092 lbs.,	dmgd, @ 5½	23 17 9	Carriage and delivery to purchasers,	19 19 2
37 "	7,112 "	5½	162 19 8	Porterage,	9 3 6
23 "	4,963 "	5½	118 18 1	Commission,	60 5 0
83 "	16,894 "	6	422 7 0		451 4 11
149 hinds,	30,061 "			Ex ship, —	
644 quarters, 115,548 lbs.,		2285	6 5	104 carcasses mutton sold in Glasgow.	
104 carcasses of mutton, —				644 quarters beef	
7 452 lbs. @ 4½	8 0 1			217 " " sent to London.	
6 315 " 4½	5 18 1			861 quarters.	
6 364 " 4½	7 4 1			Remitted to	
6 357 " 5	7 8 9			F. A. ELLIS, } Agent of S. B. & Co.,	
8 450 " 5½	9 16 10			London, }	
20 1,137 " 5½	26 1 1				
51 3,210 " 6	80 5 0	144	13 11		1958 15 5
104 6,285 "		£2410	0 4		£2410 0 4

Glasgow, April 8, 1882.

Example 2.

Bought in Paris, France, toy watches, viz., — No. 507, 3 gross @ francs 48; No. 509, 2 gross @ fr 27; No. 600, 1 gross @ fr 60; discount 20% off; also opera glasses, viz., No. 614, 6 @ fr 23; No. 615, 6 @ fr 13; No. 616, 6 @ fr 25.50; No. 617, 6 @ fr 15; No. 618, 6 @ fr 23.50; No. 619, 6 @ fr 13.75; No. 620, 6 @ fr 15.50; No. 621, 6 @ fr 17.50; No. 622, 6 @ fr 19.25; No. 623, 6 @ fr 18.75; discount 15% off; shipping charges to Havre, fr 3.40; commission added, 3%; consul's certificate, fr 5; freight from Liverpool, 18/5, @ \$5 per

pound sterling; *ad valorem* duty on toy watches, 50%; on opera glasses, 40%; custom-house charges in Boston, \$2.60; remitted for invoice in francs, at exchange fr 5.20 per dollar.

Required the proportionate cost of each number, duty paid, landed in Boston.

Example 3.

Messieurs Kellogg, Webster & Cie., à Boston, Doit à Antoine Chiris, à Grasse (Alpes Maritimes), les marchandises ci-après payables à Grasse, le 15 Nov., 1882.

	Kilo.	Estaggon.	viâ Havre.	No. 1,	@ fr. 8.	
# 19,	45.	10	essence de romarin,	" 1,	" 8.	360.
20,	2.250	5	" " néroli bigarade,	" "	" 400.	900.
"	4.500	10	" " géranium rose,	" "	" 75.	337.50
"	11.250	25	huile jasmin,	" 24,	" 15.	168.75
21,	4.500	10	" rose,	" "	" 15.	67.50
"	4.500	10	" orange,	" "	" 15.	67.50
"	4.500	10	" jasmin,	" "	" 15.	67.50
"	4.500	10	" tubéreuse,	" "	" 15.	67.50
"	4.500	10	" casse,	" "	" 15.	67.50
						fr 2,103.75
Escompte, 10%,						210.35
						fr 1,893.40

Havre charges on three cases, viz.:—

K. W. & Co., Inland carriage and portorage, fr 1.90; export duty and custom-house expenses, fr 2.80; stamped bills of lading, fr 2.80; legalizing invoice, fr 13.25; postage, fr 2; commission, fr 6. Freight per bill of lading (charges, fr 27.75; add 10%, fr 2.75); on 0.493 cubic meter, @ fr 50 per cubic meter. Duties (3% commission additional): romarin, free; others, 50% *ad valorem*; insurance, 1% on 23 cents per franc; freight paid to New York @ fr 5.30 to \$1; brokerage at New York, \$3.60; freight to Boston, \$2.25; remitted at exchange \$4.89½ to the pound sterling, and 25.25 francs to the pound.

Required proportionate cost per pound, duty paid, landed in Boston.

CHAPTER XXVIII.

SECTION 1.—Probate Accounts.

191. ACCOUNTS for settlement at a Probate Court should be exact statements made up from books kept by the representative of the estate in his official capacity as administrator, executor, guardian, or trustee. They should be so clear and perfect as to be understood without explanation, and accompanied by vouchers to which items may refer by numbers or letters. The practice in the several States is not uniform in all particulars, but, commonly, the representative of the estate of a

deceased person is required to file separate inventories of the entire real and personal property of the deceased, without regard to the liabilities, within a limited time after appointment, and to render an account of the disposition of it at stated times thereafter. The relation of guardian and trustee demands not only trustworthiness and discretion, but especial tact and skill in the care of property. Let us assume that an estate is left by will to trustees, one of whom is guardian, with a business to be continued for a time for the benefit of a minor heir ; the estate being as follows : —

April 21, 1882.

Assets.			Liabilities.		
Inward acc'ts due from debtors,	620	49	Outward acc'ts due to creditors,	314	21
Cash on hand,	1,564	37	Notes payable outstanding,	524	37
Notes receivable on hand,	819	47			
Mortgage note on hand,	2,000		Total debts,	838	58
Merchandise at appraised value,	2,639	22	Net amount of estate,	12,804	97
Household goods at appraised value,	500				
Real estate at appraised value,	5,500				
	13,643	55		13,643	55

The first inventory of the **personal estate** after appraisal would include all the assets except real estate, and would amount to \$8143.55. Let the transactions during the next term of six months be as follows : —

To November 21, 1882.

Cash Receipts.			Cash Payments.		
Inward accounts paid in,	620	49	Mortuary expenses paid,	250	
Notes receivable paid in,	419	47	Outward accounts paid out,	314	21
Rents received on real estate,	275		Notes payable taken up,	524	37
Interest received on mortgage note,	165		Taxes paid for one year,	123	04
Received for merchandise sold,	5,418	40	Current expenses paid,	525	
			Paid for merchandise bought,	5,724	82
Total receipts,	6,898	45	Net profit paid to guardian of heir,	346	41
Original balance,	1,564	37			
			Total payments,	7,807	85
			Balance of cash on hand,	654	97
	8,462	82		8,462	82

The household goods are delivered to the heir at the valuation of \$500, and there is a stock of merchandise on hand at close of the term valued at \$3500. The mortuary expenses are not deducted from the profits in this example. After posting

the facts as stated, by double entry, ascertaining the profits, and the remaining assets, the question is how to show the condition of the trust to the satisfaction of the court. The sides of a legal account are called schedules, and are designated by letters, as A, B, C, etc., and a statement of the foregoing would be as follows:—

<i>The Accountants charge themselves as follows:—</i>			<i>The Accountants claim Allowances as follows:—</i>		
Schedule A.			Schedule B.		
Inventory filed April 21, 1882,	8,143	55	Mortuary expenses,	250	
Interest received on mortgage note,			Outward accounts paid,	314	21
Schedule D,	165		Outstanding notes paid,	524	37
Rents received on real estate,			Taxes paid for one year,	123	04
Schedule D,	275		Current expenses paid,	525	
Increase or gain on goods sold,			Household goods delivered to heir,	500	
Schedule D,	554	45	Net profits paid guardian, Sched. D,	346	41
				2,583	04
			Balance, not yet liquidated, as per		
			Schedule C,	6,554	97
	9,138			9,138	
Schedule C.			Schedule D.		
<i>Statement of the composition of the balance, as shown at date of accounting:—</i>			<i>Statement showing gains and losses.</i>		
Cash on hand,	654	97	Merchandise, total sales,	5,418.49	
Notes receivable,	400		Final inventory,	3,500.	8,918 49
Mortgage note,	2,000		Total purchases,	5,724.82	
Merchandise at appraisal value,	3,500		Original inventory,	2,639.22	8,364 04
			Net profit on merchandise,		554 45
			Rents received,	275.	
			Interest received,	165.	440
			Gross profits,		904 45
			Less { taxes paid,	123.04	
			{ current expenses,	525.	648 04
Total of personal estate,	6,554	97	Balance, net profit paid guardian,	346	41

Heads of account only are suggested here, but in an actual account the particulars of items should be stated in full; all the notes and accounts should be collected, and convertible assets turned into cash, before a final account is rendered. Judgments against delinquent debtors should be procured, or sufficient reason given for delay in collection.

Form of Trustees' Account to Probate Court, as used in Suffolk County, Mass.

[Unless all parties interested assent to the account, they must be cited.]

THE ACCOUNT OF , Trustee under the will of , late of Boston, , in the County of Suffolk, deceased, of certain estate held by for the benefit of

Said accountant charge h sel with the several amounts received as stated in schedule A, herewith exhibited \$ and ask to be allowed for sundry payments and charges as stated in Schedule B, herewith exhibited \$ Balance invested as particularly stated in schedule C, herewith exhibited . \$

..... } Trustee .
.....
.....

The undersigned, being all the parties interested, have examined the foregoing account, and request that the same may be allowed without further notice.
.....

Commonwealth of Massachusetts.

SUFFOLK, ss. At a Probate Court held in Boston, in said County, on the day of , A.D. 188 :—

The foregoing account having been presented for allowance, and notice thereof having been given to the parties interested, according to the order of the Court, who ha in writing assented thereto, and no objection being made thereto, and the same having been verified by the oath of the accountant , and examined and considered by the Court;

IT IS DECREED that the same be allowed and recorded.

..... Judge of Probate Court.

Schedule A.				Schedule B.			
No. of Item.	Date.		Dolla. Cts.	No. of Item.	Date.		Dolla. Cts.
		Amount of personal estate according to inventory . Balance of former account rendered . Amounts received from gain on sale of personal estate over appraised value, and from other property not included in the inventory, as follows : —				Amount paid out and charges as follows : —	

CHAPTER XXIX.

SECTION 1. — A Page of a Merchant's Ledger.

192. A MERCHANT may have few or many accounts similar to the following example, according to the extent of his business. It is not always practicable nor advisable to rule off an account in a ledger so as to show each settlement separately. It is customary, in an ordinary jobbing business, to dot or letter the corresponding items which a payment settles, and the total of the items not dotted or lettered will be equal to the exact balance of the account.

After all items are posted at close of a month, each side of an account is footed in small figures, in pencil, between the lines; the debit or credit remainder is set down upon its proper side, in pencil, and is the sum included in a trial balance list against its name.

Goods have been sold to Newcome & Edgar on various terms of credit, and notes have been taken for time bills. On Oct. 31, upon comparing the sides, a debit balance of \$1024.58 appears; but, on inspecting the credit side, it is seen that a note for \$617.48, due Jan. 3/6, has been taken, and is yet unpaid: so that, if it is still in the merchant's possession, or has been discounted with his indorsement and not disposed of without recourse, the firm is indebted to him for the sum of \$1642.06. This may go on increasing, almost unawares, until, as we see on Nov. 30, the firm owes \$1249.28 balance of account and \$1839.88 in notes, or \$3089.16 in all; and on Dec. 31 the firm owes \$524.65 balance of account and \$3223.91 in notes, or \$3748.56 in all.

If for prudential reasons the merchant decides that their line of credit is too large, he must stop selling them goods until their indebtedness is reduced to a safe risk. Suppose that on Jan. 25 they have paid the balance of account and the first note, reducing it \$1142.13, and it is advisable to sell them net bills, to be paid promptly in ten days; this may continue until all the notes have been paid, when it may be wise to increase their limit and sell them more freely. What the merchant wants to know about an account is, *first*, whether bills are settled promptly as they become due; *second*, the condition and disposition of notes previously received on the account, and the entire indebtedness to him, including notes not yet due. This knowledge can be acquired only by constant inspection of the account, aided by the pencil footings and remainders. The memoranda of unpaid notes may be made in red ink or pencil.

DR.		NEWCOME & EDGAR.				(Holyoke, Mass.)		CR.	
1881.		S.B.		1881.		C.&L.			
Oct. 3	To merchandise, 3 mos.	119	b 617 48	Oct. 17	By cash,	44	a 213 16		
" 7	" " net,	125	a 213 16	" 19	" note, due Jan. 3/6, '82,	29	b 617 48		
" 9	" " 10 days.	130	c 144	" 19	" cash,	50	c 144		
" 16	" " net,	142	d 315 19	" 26	" " "	54	d 315 19		
" 23	" Due. Note. 60 days,	148	e 259 23	Nov. 13	" " "	64	e 250		
" 28	" Bal. acc't, 1,024.58 Indeb't'ment, 1,642.06	156	f 765 35	" 13	" allowance for dam'ge,	57	c 9 23		
Nov. 3	" " net,	162	g 577 19	" 13	" their note, due Feb. 28/3 March, '82,	31	f 765 35		
" 8	" " 3 mos.	167	h 457 05	" 14	" cash,	64	g 577 19		
" 15	" " net,	171	i 329 92	" 18	" note, d. Feb. 8/11, '82,	33	h 457 05		
" 18	" " "	176	j 148 10	" 25	" cash,	72	i 329 92		
" 21	" Due. Notes. 4 mos.	182	n 836 72	" 28	" " "	76	j 148 10		
" 24	" Bal. acc't, 1,630.98 Indeb't'ment, 1,949.26	185	k 347 21	Dec. 11	" " "	84	k 347 21		
" 26	" " 15 days,	187	l 65 35	" 12	" " "	86	l 65 35		
Dec. 1	" " net,	190	m 192 19	" 13	" " "	"	m 192 19		
" 6	" " "	195	o 103 89	" 16	" note, d. Mch. 21/24, '82,	35	n 836 72		
" 9	" Due. Notes. 4 mos.	201	q 547 31	" 24	" cash,	88	o 103 89		
" 14	" Bal. acc't, 1,630.98 Indeb't'ment, 1,949.26	207	p 936 29	" 24	" mch. returned,	37	p 36 29		
" 17	" " 30 days,	209	s 157 05	" 25	" cash,	92	p 900		
" 21	" Bal. acc't, 1,630.98 Indeb't'ment, 1,949.26	212	r 402 81	" 25	" note, d. Apl. 9/12, '82,	37	q 547 31		
" 25	" " "	216	367 60	" 31	" cash,	96	r 402 81		
		7783 09		1882.					
				Jan. 17	" " "	104	s 157 05		
				" 25	" " "	112	367 60		
				1882.					
				Feb. 5	By cash,	118	a 673 06		
				" 13	" " "	124	b 204 18		
				" 19	" " "	128	c 751 50		
				" 26	" " "	132	d 639 81		
				March 6	" " "	134	e 130 98		
				" 16	" " "	136	f 418 01		
				" 26	" " "	138	g 319 62		
				April 21	" " "	146	h 757 32		
				" 26	" note, due Aug. 4/7, '82,	47	i 863 27		
1882.									
Jan. 26	To merchandise, net,	237	a 673 06	Feb. 5	By cash,	118	a 673 06		
Feb. 3	" " " "	243	b 204 18	" 13	" " "	124	b 204 18		
" 9	" Due. Notes. 3 March, 765.35 24 April, 836.72 12 April, 547.31	251	c 751 50	" 19	" " "	128	c 751 50		
" 16	" Bal. acc't, 2,149.88 Indeb't'ment, 130.08	256	d 639 81	" 26	" " "	132	d 639 81		
" 23	" " " "	261	e 130 98	March 6	" " "	134	e 130 98		
March 6	" " " "	263	f 418 01	" 16	" " "	136	f 418 01		
" 16	" " " "	267	g 319 62	" 26	" " "	138	g 319 62		
April 4	" " " 4 mos.	273	i 863 27	April 21	" " "	146	h 757 32		
" 11	" Due. Notes. 7 Aug. 863.27 Bal. acc't, 395.19	275	h 767 32	" 26	" note, due Aug. 4/7, '82,	47	i 863 27		
" 18	" Indeb't'ment, 1,249.46	282	386 19						
		6143 94							

SECTION 2. — Common Carriers.

193. Common carriers are those who make it their business to carry passengers or goods for hire. The term includes all who carry by land or water, such as truckmen, stage proprietors, express and railroad companies, and the owners and masters of sailing or steam ships. They are responsible to the owners and insurers for the property carried, and for loss and damage in transit, except within exemptions of the contract.

Bills of lading are acknowledgments of the receipt of the goods specified, and contracts for their delivery at a certain place, under conditions stated therein, upon payment of freight and expenses; they are negotiable, and may be passed by indorsement; but are of no value apart from the goods to which they give a title. A bill of lading goes with certain **specific** goods, to which it gives the holder a claim, and not to others like them.

A draft is frequently sent with a bill of lading attached. The draft and the bill of lading are made to the order of the same person (usually a banker), who holds them until payment is made, and then indorses the bill of lading to the order of the payer of the draft and delivers it to him.

Express companies take goods marked C.O.D., together with a bill for collection, and contract to deliver the goods only upon payment of the bill; this amounts to the same thing as a "draft with a bill of lading attached," but is for smaller transactions and shorter distances.

Marine bills of lading are commonly uniform in their conditions; but some steamship companies exempt themselves in their forms of contract from liability arising from the "act of God, restraints of governments or of the public enemy, collisions or fire, and accidents to machinery and boilers," and other special provisions. They are made in triplicate, one being kept by the shipper, another by the vessel, and the third is sent to the consignee. Original receipts, stating marks and quantities of goods, go with each separate lot to the vessel, and are summed up in the formal bill of lading, for which they are exchanged. **Railroad contracts** are stated in full in the original receipt, which, when goods are sent by a contracting through line over connecting roads, is exchanged for bills of lading.

UNITED STATES AND CANADA EXPRESS.


BOSTON, Mass., Dec. 15, 1882.

C.O.D.
Express
Receipt.

RECEIVED of Upham & Strong, one package, said to contain clothing, valued at fifty dollars, marked Henry Baldwin, Vernon, Vt., C.O.D., \$50. Not negotiable. For the Company.

(Conditions omitted.)

THOS. GREGG, Agent.

MARKS AND NUMBERS.  § 1 to 100. Lewis Wharf.	Boston, <i>Oct 27,</i> 1882.
	RECEIVED FROM <i>Amos Watson & Son,</i> in
	good order, on board the <i>Barge Mabel,</i>
	for <i>Melbourne,</i>
	<i>One hundred cases of canned goods,</i> marked as in the margin. <i>W. Ford, Mate.</i>

Shipped, in good order and condition, by *Amos Watson & Son,* on board the good *Barge* called the *Mabel;* whereof *Boardman* is Master, for this present voyage, now lying in the Port of BOSTON, and bound for *Melbourne, Australia,*

To say:



§ 1 to 100.

One hundred cases of canned goods,

being marked and numbered as in the margin, and are to be delivered in like good order and condition, at the aforesaid Port of *Melbourne,*

Australia,

(the danger of the Seas only excepted) unto

W. M. Hunter & Co.

or Assigns, he or they paying

Freight for said Goods *ten dollars per ton measurement,*

with 5% Primage and average accustomed.

IN WITNESS WHEREOF, the Master or Agent of the said vessel hath affirmed to *three* Bills of Lading, all of this tenor and date; one of which being accomplished, the others to stand void.

DATED AT BOSTON,

October 27, 1882.

P. Boardman, Master.

BOSTON AND ALBANY RAILROAD COMPANY.

Boston, Aug. 25, 1882.

MARKS AND NUMBERS.

F. T. & Co.,
Cinn.,
O.

★ UNION LINE.

RECEIVED FROM

*J. W. Richardson & Co.**Ten bags Saltpetre, weight, 1780 lbs.*Marked and numbered as per margin, contents and value unknown, to be transported to *Cincinnati, O.,*

and delivered at the depot there, to *Joseph Taylor & Co.,*
on the payment of Freight therefor, together with such expenses as shall be shown by vouchers to have been advanced on the same. This contract and the responsibilities of the parties hereto being limited and controlled by the Rules and Regulations printed upon the back of this receipt, as also by their printed tariffs of freight; and it being also understood that this Company assumes no liability beyond the end of its own line, and that so far as it acts as agent for other parties participating in the joint transit aforesaid, said parties are separately liable.

J. F. Gay, Freight Agent.

FOR BOSTON & ALBANY RAILROAD,

By *Henry McLeary.*

★ UNION LINE.

RECEIVED, Boston, August 25, 1882, of *J. W. Richardson & Co.*...

The following packages (contents unknown) in apparent good order: —

MARKS: *F. T. & Co., Cinn., O.*

Notify Jos. Taylor & Co.
Cincinnati,
O.

Ten bags Saltpetre,
Freight, 4th class, 18 cts. per 100 lbs.
Shipper's weight, 1780 lbs.

To be transported by the Union Line, and the Steamboats, Railroad Companies, and Forwarding Lines
with which it connects, upon the following Conditions (omitted).

IN WITNESS WHEREOF the agent has affirmed to *two* Bills of Lading of this tenor and date, one of which
being accomplished, the others stand void.

J. W. Moriarty, Agent.

SECTION 3. — Table of Time, in Days.

194. The following table gives the exact time, in days, between two dates ; thus, required the time from Feb. 10 to Oct. 18, in the same year. Feb. 10 is numbered 41 and Oct. 18 is numbered 291 ; $291 - 41 = 250$, *Ans.* This includes the last day, but not the first. If both days are taken, subtract 40 from $291 = 251$, *Ans.* When Feb. 29 occurs in a term, count an additional day. The day of the *date* of a note is not included in its term ; thus, required the last day of grace of a note dated March 24, at 90 days. $March\ 24 = 83$; $83 + 93 = 176 = June\ 25$, *Ans.*

Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1	32	60	91	121	152	182	213	244	274	305	335
2	33	61	92	122	153	183	214	245	275	306	336
3	34	62	93	123	154	184	215	246	276	307	337
4	35	63	94	124	155	185	216	247	277	308	338
5	36	64	95	125	156	186	217	248	278	309	339
6	37	65	96	126	157	187	218	249	279	310	340
7	38	66	97	127	158	188	219	250	280	311	341
8	39	67	98	128	159	189	220	251	281	312	342
9	40	68	99	129	160	190	221	252	282	313	343
10	41	69	100	130	161	191	222	253	283	314	344
11	42	70	101	131	162	192	223	254	284	315	345
12	43	71	102	132	163	193	224	255	285	316	346
13	44	72	103	133	164	194	225	256	286	317	347
14	45	73	104	134	165	195	226	257	287	318	348
15	46	74	105	135	166	196	227	258	288	319	349
16	47	75	106	136	167	197	228	259	289	320	350
17	48	76	107	137	168	198	229	260	290	321	351
18	49	77	108	138	169	199	230	261	291	322	352
19	50	78	109	139	170	200	231	262	292	323	353
20	51	79	110	140	171	201	232	263	293	324	354
21	52	80	111	141	172	202	233	264	294	325	355
22	53	81	112	142	173	203	234	265	295	326	356
23	54	82	113	143	174	204	235	266	296	327	357
24	55	83	114	144	175	205	236	267	297	328	358
25	56	84	115	145	176	206	237	268	298	329	359
26	57	85	116	146	177	207	238	269	299	330	360
27	58	86	117	147	178	208	239	270	300	331	361
28	59	87	118	148	179	209	240	271	301	332	362
29	-	88	119	149	180	210	241	272	302	333	363
30	-	89	120	150	181	211	242	273	303	334	364
31	-	90	-	151	-	212	243	-	304	-	365

SECTION 4. — Miscellaneous Examples.

Example 1.

195. Bank account as in a check-book.

1882, July 1. Balance in bank, \$3410.64; deposited, bank notes, \$300; checks, \$90, \$64.72; checks issued, No. 262, \$50; No. 263, \$218.22; No. 264, \$1115.

July 3. Deposited, checks, \$500, \$400, \$1500; bank notes, \$400; checks issued, No. 265, \$95.37; No. 266, \$677.

July 5. Deposited, checks, \$1000, \$1500, \$62.34.

July 6. Deposited, bank notes, \$100; checks, \$500, \$125, \$140.50; note of J. W. K. & Co. collected by the bank, \$658; checks issued, No. 267, \$50; No. 268, \$220; No. 269, \$554.83; No. 270, \$535; No. 271, \$1666.88; No. 272, \$1659.25; No. 273, \$1257.80; No. 274, \$919.76.

July 7. Draft on A. H. W. & Co. collected by the bank, \$723.87; bank charge for collecting, 50 cts.; deposited, bank bills, \$573; checks, \$500, \$600, \$873.45; checks issued, No. 275, \$1837.14; No. 276, \$1117.10; J. S. P. & Co.'s note discounted by the bank, \$1500, less discount, \$12.68.

July 8. Collection, draft on M. J. & W., \$1124.22; checks issued, No. 277, \$308.92; No. 278, \$622.81; No. 279, \$1500.

July 10. Deposited, checks, \$1121.82, \$461.54, \$711.11; checks issued, No. 280, \$1018.22; No. 281, \$1024.15; No. 282, \$281.24; No. 283, \$258.50.

July 11. Check issued, No. 284, \$164.69; deposited, bills, \$480; checks, \$106.25, \$500, \$100.

July 12. Checks issued, No. 285, \$1076.25; No. 286, \$1000; deposited, checks, \$600, \$400, \$208.30, \$280.09.

July 13. Deposited, checks, \$886.69, \$418.42, \$261.27, \$354.84, \$102.50, \$306.26, \$630.42.

July 14. Check issued, No. 286, \$24.38.

July 15. Check issued, No. 287, \$2700.

July 16. Checks issued, No. 288, \$120; No. 289, \$1188.

July 18. Checks issued, No. 290, \$102.50; No. 291, \$356.25.

July 20. Collection, A. & A. J.'s note, \$603.53.

July 24. Deposited, bills, \$360.

July 26. Deposited, checks, \$1780, \$100.32, \$900, \$3000.

July 28. Checks issued, No. 292, \$1624.96; No. 293, \$1500.

July 29. Checks issued, No. 294, \$200; No. 295, \$720; No. 296, \$100.

Checks not returned by the bank on Aug. 1, No. 292, No. 294, No. 295.

Required a statement of the above as in a check-book, with the continuous balances in margin, final balances as per bank-book and check-book, and a reconciliation of the two.

Example 2.

Bought, June 5, 1882, in Hankow, China, and shipped per steamer *via* Shanghai, Yokohama, and San Francisco, and overland for Boston, by order and for account and risk of P. Dumas, Boston, 34 packages of tea, viz., —

[D] 25 packages, containing 100 boxes, each of 10 catties net, @ tael 4.90 per box.

9 packages, containing 54 boxes, each of 5 catties net, @ tael 2.70 per box.

Insured for 700 taels, @ $1\frac{1}{2}\%$, in the China Traders' Insurance Company (limited); insurance added to invoice; on board free of all charges. The invoice, amounting to taels 648.05, was drawn for on June 5, at 60 days' sight, at exchange \$1.52 $\frac{1}{2}$ per tael, the draft reaching Boston on July 10. The goods reached Boston on Aug. 29, when the draft was prepaid with the interest off. The freight paid Aug. 29 was \$160.10. Tea is free of duty. The catty is equal to $1\frac{1}{2}$ lbs. avoirdupois.

Required the proportionate cost per pound of the tea in each size of package upon its landing in Boston. The tael of silver weighs 580 grains Troy, and is exchanged at the rate of 720 taels per 1000 Mexican dollars, or nearly \$1.39 per tael.

Example 3.

The schooner "Boxer" was fitted out for a cod-fishing voyage, with stores costing \$75.19; bait and ice, \$136. The crew consisted of 10 men, No. 1 being the captain; No. 10 is the cook, to whom the rest agreed to contribute \$10 extra out of their shares. The number of fish caught by each were as follows: No. 1, 1140; No. 2, 1222; No. 3, 1359; No. 4, 1050; No. 5, 1060; No. 6, 1569; No. 7, 1146; No. 8, 1559; No. 9, 1211; No. 10, 489. The catch sold as follows, free of charges: 33,475 lbs. codfish @ 3 cts. per lb., 3560 lbs. small codfish @ $1\frac{1}{2}$ cts. per lb., 160 lbs. cusk @ 1 ct. per lb., 300 lbs. haddock @ $\frac{3}{4}$ ct. per lb., 308 gals. livers @ 10 cts. per gal. One-half of net stock, each, to owners and crew. All of the stores and one-half of the bait come out of owners' share. The crew's expenses were, one-half of bait, 12 bbls. water @ 20 cts. per bbl.; medicine, \$3; and their *pro rata* contribution of \$10 in all to the cook's share. The captain also receives 5% on the gross stock out of the owners' part.

Required a settlement of the voyage and the share of owners and each of the crew. (See p. 158.)

Example 4.

The cases shipped by the "Mabel" (page 227) measure as follows: —

25 cases,	2 ft.	by 1 ft. 8 in.	by 1 ft. 6 in.,
50 "	1 ft. 8 in.	by 1 ft. 6 in.	by 1 ft.,
25 "	2 ft. 4 in.	by 1 ft. 10 in.	by 1 ft. 6 in.

Required the freight bill, in sterling money, as it would be rendered at Melbourne, exchange being at $48\frac{7}{8}$ pence to the dollar.

Example 5.

Suppose yourself to be doing a jobbing business in produce and provisions, and that your transactions are as follows : —

ASSETS, Nov. 1, 1882. *Accounts receivable*, viz., — Mead & Tuttle, \$196.54; Ropes & Chase, \$219.82; Osgood & Allen, \$142.87; Holt & Cary, \$235.27; Flint & Curtis, \$140.50; Donne & Fry, \$519.75. *Cash* on hand and in bank, \$3826.14. *Notes receivable* on hand, viz., — Aug. 3, @ 3 months, Durgin & Brown, \$618.48; July 10, @ 4 months, H. Loomis & Co., \$527.32; Oct. 19, 30 days, Hallett & Wing, \$225.75; Sept. 9, 60 days, Torrey & Pratt, \$680.48; Oct. 25, @ 30 days, Walker & Amee, \$166.67. *Valuation* of merchandise in store, \$25,659.82,

LIABILITIES, Nov. 1, 1882. *Accounts payable*, viz., — Anthony Swift & Co., \$784.26; Hunt & Wilder, \$536.73; Church & Hall, \$658.38; Perry & Vose, \$277.95. *Notes payable* outstanding, viz., — Oct. 4, 30 days, Smith & Byrnes, \$460; Oct. 25, 10 days, Gardner & Murphy, \$349.87; Oct. 28, 60 days, Wiggin & Upton, \$958.15; Oct. 31, 3 months, Fowle, Hibbard & Co., \$1552.13.

Nov. 1. Sold to Lyon & May 10 tubs butter, 508 lbs., @ 35 cts. per lb.; 5 bbls. pea beans, 1216 lbs., 62 lbs. to the bushel, @ \$3.10 per bush.; 5 boxes cheese, 335 lbs., @ 14 cts. per lb.; 20 bbls. flour, @ \$8½ per bbl. Received cash from Ropes & Chase, on account, \$219.82; paid cash, on account, to Anthony Swift & Co., \$784.26; sold merchandise, for cash, \$1654.19.

Nov. 2. Sold Davis & Shannon, 50 tubs butter, gross 2814 — 304 tare = 2510 lbs. net, @ 32½ cts. per lb.; sold Dow & Wiswall 10 boxes maple sugar, 585 — 75 = 510 lbs., @ 15 cts. per lb.; 10 tubs butter, 557 lbs. net, @ 32¼ cts. per lb.; received cash from Flint & Curtis, on account, \$140.50; paid cash to Church & Hall, on account, \$658.38; cash received from Osgood & Allen, on account, \$142.87; bought, by wire, of Willis & Sykes, Chicago, 200 bags North-western clover-seed, 51,600 lbs, @ 8 cts. per lb. (bags 50 cts. each); accepted their draft for the amount, @ 90 days' date; presented with bill of lading on Nov. 9.

Nov. 4. Sold to Barry & Cobb 2 bbls. dry maple sugar, weights, 164 — 20, 175 — 21 = 298 lbs. net, @ 12 cts. per lb.; 20 boxes cheese, 1120 lbs., @ 11¼ cts. per lb.; sold merchandise, for cash, \$1892.19; paid for telegrams, \$1.25 cash.

Nov. 6. Sold to Blake & Spear 10 bbls. pea beans, 2304 lbs., 62 lbs. to the bushel, @ \$3.75 per bushel; received the money for Durgin & Brown's note of Aug. 3, \$618.48; paid my note of Oct. 4 to Smith & Byrnes, \$460.

Nov. 7. Sold to Pool & Jenkins, Baltimore, 25 tierces lard, 7818 lbs., @ 16 cts.; 25 hhds. pickled hams, 30,909 lbs., @ 17 cts.; drew for the amount, with bill of lading attached, @ 10 days' date; draft discounted at the bank and placed to my credit with discount off (rate 6%); sold to Haley & Martin, New York, 6 hhds. tallow, 6539 lbs. net, F.O.B., @ 9¼ cts. per lb.; drew for the amount at sight, with bill of lading attached.

Nov. 8. Sold to Wright & Fay, Philadelphia, 25 tierces lard, 7697 lbs. net, @ 15¼ cts., F.O.B.; drew for it at 10 days' date, with bill of lading attached.

Nov. 9. Sold to Bradshaw & Patch, @ 10 days' credit, 25 bbls. lard oil, 1115 — $24\frac{1}{2}$ = 1090 $\frac{1}{2}$ gals., @ 90 cts. per gal.; Holt & Cary paid cash on account, \$235.27; merchandise sold for cash, \$2500.

Nov. 10. Sold Coulter & Co., Baltimore, 3 tierces hams, 918 lbs. net, @ $14\frac{1}{2}$ cts. per lb.; 10 tierces hams, 3049 lbs. net, @ $14\frac{1}{4}$ cts. per lb.; 13 tierces @ \$1.00 each; carting added, \$1.37; sold to Kimberly Brothers, Norfolk, Va., 5 hhds. pork shoulders, 5375 lbs. net, @ 9 cts. per lb.; sold to Roberts & Libby 25 bbls. beef @ \$15 per bbl.; 35 bbls. clear pork @ \$23 per bbl.

Nov. 11. Returns received for my draft of 7th inst. on Haley & Martin, and credited to me at the bank; charged for collection by the bank, \$1.37; bought of Jewett & Swift, 8 hhds. rough tallow, 8859 lbs., @ $6\frac{1}{4}$ cts., cash in 10 days; received, on consignment, from A. H. Warthman & Co., Philadelphia, 304 bbls. mess beef and 57 bbls. beef hams, paid freight 40 cts. per bbl.; carting, 6 cts. per bbl.; accepted their sight draft for \$3500, with bill of lading.

Nov. 13. Sold to W. G. Bell & Co. 57 bbls. beef hams @ \$17 per bbl., from A. H. W.'s, consignment; sold to J. W. Roberts & Co. 100 bbls. mess beef, from A. H. W.'s, consignment, @ \$12 per bbl.

Nov. 14. Sold to James Bliss & Co., 204 bbls. mess beef, @ $12\frac{1}{4}$ per bbl., from A. H. W.'s consignment; paid Warthman's draft.

Nov. 21. Rendered an account of sales to A. H. Warthman & Co. for their consignment, charging them with freight and carting paid; commission and guaranty $2\frac{1}{2}\%$, and inclosing a check for the amount due them; paid Jewett & Swift's bill.

Nov. 22. Expenses paid, — rent of store, one quarter, to date, \$300; clerk hire, \$100; labor employed, \$68.75; truckman's bill for carting, \$109.42. Valuation of stock in store this day is estimated to be \$15,000.

Required a statement of your financial standing after entering and posting the foregoing by double-entry.

Example 6.

A builder bought land, at \$1000 per acre, in a lot of 10 acres, through which he laid out a 40-ft. street, 400 feet in length, leaving the remainder in 20 building lots of equal average size. Laying out and grading the street cost \$1100. Upon the best lot was built a two-story wooden house, 30 ft. by 30 ft., with an L; it having four rooms each on two floors, and two attic rooms. The details of the cost of the house were as follows; viz., —

Digging well and cellar, stone-work and grading, \$400; brick-work for two chimneys, 9 M @ \$18, laid, per M; 13 M ft. lumber @ \$18 per M; 46 days, framing, @ \$3 per day; 2 kegs spikes @ \$4 each; 3522 ft. under-floor boards @ 2 cts. per ft.; 3522 ft. top-floor boards @ $.02\frac{6}{10}$ cts. per ft.; laying floors, 64 squares, @ \$1 per square; 5 kegs floor-nails

@ \$4 each; 225 ft. BM. for porch floor @ 4 cts. per ft.; laying same, \$3; 3820 ft. siding @ 2 cts. per ft.; 4327 ft. roofing @ 2 cts.; 550 sq. ft. porch and soffit ceiling @ 3 cts.; labor on 80 squares @ \$1.50 per square; 700 lbs. sheathing paper @ 4¼ cts. per lb.; 6 kegs sheathing nails @ \$4 each; 3800 sq. ft. clap-boards, laid, @ 6 cts. per ft.; 44 squares shingles, laid, @ \$6 per sq.; 600 linear ft. corners and cases, set, @ 10 cts. per ft.; 280 ft. cornice, moulding, and gutters, set, @ 10 cts. per ft.; 180 ft. conductors @ 10 cts. per ft.; porch finish, \$20; 200 ft. hard pine stairs @ 4 cts. per ft.; 250 ft. white pine stairs @ 4 cts. per ft.; 10 days' labor on stairs @ \$3; rail and balusters, \$20; 810 linear ft. base @ 6 cts. per ft.; window finish, 16, @ \$2 each; window frames, 17, @ \$2 each; outer finish, 17, @ \$1 each; 34 pairs sashes @ \$1¼ per pair; 32 doors, hung, @ \$3 each; finish for 32 doors @ \$2.50 each; 32 door frames, set, @ \$1.50 each; furniture and trimming for 32 doors @ \$2.25 each; 38 blinds and trimmings, hung, @ \$2.50 each; 1000 sq. yds. plastering @ 27 cts. per sq. yd.; 4000 sq. ft. papering @ 1½ cts.; painting, 3 coats, 450 sq. yds., @ 25 cts.; painting, 2 coats, 320 sq. yds., @ 19 cts. per sq. yd. Four other similar houses, each costing 10% less, were built. The first house and lot sold for \$5000, the others for \$4500 each, at end of eighteen months from the commencement.

Reckoning one year's tax on land, and one year's tax on houses at cost, at \$12 per \$1000, with interest for 18 months on investment, and calling the remaining land worth 5 cts. per foot, required the profit on the enterprise, all transactions being for cash.

Example 7.

Assume that the following is a record of the business of a dry-goods jobbing firm with three partners: viz., —

ASSETS. — *Accounts Receivable* due to the firm, viz., — C. E. Lyon & Co., \$447.59; J. T. Rines & Co., \$126.54; Carleton, Norwood & Co., \$162.63; E. & W. Andrews & Co., \$128.58; Blanchard & Crapo, \$257.12; Crawford and Anderson, \$86.59; Hunt & Fuller, \$123.12; S. O. Keith, \$42.28; Tuttle, Jones & Wetherbee, \$189.92; Haslam & Turpin, \$215.16; George D. Armstrong, \$92.83; A. B. Sherman, \$112.17; Cook, Taylor & Co., \$316.87; Byron & Truell, \$242.68; L. J. Brown, \$167.42; Howe & Stetson, \$57.14; N. B. Lake, \$182.49; Durgin Brothers, \$162.94; Amos Parmenter, \$48.87. *Notes Receivable* in their possession and owned by them, viz., — N. & C. N. Parker, \$314.26; Alexander Patillo, \$226.84; O. J. Fiske, \$766.28; John Greer, \$598.41; S. W. Ricker, \$598.41; O. P. Estes, \$676.18. *Cash* on hand and in bank, \$2086.78. *Valuation* of the stock of goods in store, \$49,698.27.

LIABILITIES. — *Accounts Payable* owed by the firm, viz., — H. P. Emerson & Co., \$167.12; R. S. Frost & Co., \$519.41; L. Coleman & Co., \$621.45; Brown, Durrell & Co., \$474.95; J. L. Little & Co., \$1642.64. *Notes Payable* outstanding, viz., — Morse, Shepard & Co., \$667.82; Mudge & Co., \$752.21; Lawrence & Co., \$2680.75. The capital of the firm is

owned as follows: partners A and B, each three-eighths; partner C, one-fourth. The profits are to be divided to each in proportion to capital. The following business is done:—

Aug. 14, 1882. Bought of Bliss, Fabyan & Co. (2% discount, 10 days), 10 bales brown cotton, 7614 yds., @ $7\frac{1}{2}$ cts. per yd. Bought of George C. Richardson & Co., 3 cases $\frac{1}{4}$ blue denims, 3620 yds., @ $12\frac{1}{2}$ cts. per yd. Sold to Forbes & Wallace, Springfield, 1 case cassimere, 456 yds., @ $\$1.17\frac{1}{2}$ per yd.; 10 bales $\frac{3}{4}$ bleached sheeting, 4096 yds., @ 18 cts. per yd.; 50 doz. linen napkins @ $\$1.87\frac{1}{2}$ per doz.; 10 pieces Hamilton delaines, 418 yds., @ 14 cts. per yd.; 1 case Merrimack prints, 1606 yds., @ 9 cts. per yd. Sold to George M. Eddy & Co., New Bedford, Mass., 10 pieces black silk, $307\frac{1}{2}$ yds., @ $\$1.57\frac{1}{2}$ per yd.; 5 pieces bleached Damask, 111 yds., @ 39 cts. per yd.; 2 pieces grass linen, 89 yds., @ 18 cts. per yd.; 1 piece black tarletan, 20 yds., at 21 cts. per yd.

Aug. 15. Bought of Lawrence & Co., @ 4 mos., or 5% discount, 60 days, 2 cases women's white hose, 100 each, 200 doz., @ $\$2.25$ per doz. Bought of Parker, Wilder & Co., @ 4 months, 5 bales red twilled flannel, 2020 yds., @ $44\frac{1}{2}$ cts. per yd.; 5 cases $\frac{1}{4}$ blankets, each 50 pairs, 250 pairs, @ $\$6.97\frac{1}{2}$ per pair. Sold to Coykendall Brothers, Minneapolis, 1 case $\frac{1}{4}$ blankets, 50 pair, @ $\$7.05$; 1 case $\frac{3}{4}$ white flannels, 615 yds., @ $22\frac{1}{2}$ cts. per yd.; 50 pieces Russia crash, 1192 yds., @ $10\frac{1}{4}$ cts. per yd. Money received, viz.,—from C. E. Lyon & Co., $\$447.59$; from Blanchard & Crapo, $\$257.12$; note of O. J. Fiske collected, $\$766.28$; paid H. P. Emerson & Co., on account, $\$167.12$.

Aug. 16. Sold to H. E. Palmer & Co., Bath, Me., 3 pieces cambric, $146\frac{1}{2}$ yds. @ 6 cts. per yd.; 2 pieces furniture print, 49 yds., @ 15 cts. per yd.; 1 piece sateen jean, $50\frac{1}{2}$ yds., @ 9 cts.; No. 628/7, 2 doz. ladies' hose @ $\$3$; No. 628/9, 3 doz. hose @ $\$3.50$; No. 630/1, 5 doz. hose @ $\$4$ per doz.; 10 doz. No. 40 linen thread @ $\$1$ (less 5%) per doz. Bought of Ætna Mills 10 pieces cassimere, 317 yds., @ $\$1.31\frac{1}{4}$ per yd. Bought of E. P. Wilbur 20 bales batts, 100 lbs. each, @ $10\frac{1}{2}$ cts. per lb. Sold to L. J. Brown 1 piece fancy cassimere, $36\frac{1}{2}$ yds., @ $\$1.07\frac{1}{2}$ per yd.; 1 piece red twilled flannel, 38 yds., @ 45 cts. per yd.; 1 piece roll silesia, 57 yds., @ 11 cts. per yd.; 2 M paper collars @ $\$18$ per M. Bought of Deering, Milliken & Co. 2 cases bleached cotton, 3110 yds., @ $6\frac{3}{4}$ cts. per yd.; 1 case A.C.A. ticking, 1186 yds., @ $13\frac{1}{2}$ cts. per yd.; 1 case hickory stripes, 1214 yds., @ $11\frac{3}{4}$ cts. per yd. Money received, viz.,—merchandise cash sale to Seth Davis, $\$171.62$; merchandise cash sale to N. Ford & Sons, Duxbury, $\$268.89$; Haslam & Turpin remit, on account, $\$215.16$; note of A. Patillo collected, $\$226.84$; remitted by O. P. Estes, and indorsed on his note, $\$500$; expenses paid, express charges, $\$1.25$; 1% discount allowed to Haslam & Turpin, $\$2.16$; net remittance $\$213$ from them; paid Brown, Durrell & Co., $\$474.95$, less 2% discount allowed by them; N. B. Lake remitted money, $\$182.49$. Valuation of stock of goods on hand at close of business this day, $\$52,589.72$.

Required a statement of the condition of the firm after making entries and posting the above items by double-entry, and the balance of capital owned by each partner.

Example 8.

Bought in Smyrna, Asia Minor, and imported, *via* Liverpool, per steamship "Sidon,"

8 cases figs, $20.42 - 4.10 = 16.32$ kantars @ 300 piasters per kantar; charges for boxes, piasters 971.96; commission, piasters 352.07; bill brokerage, piasters 13; consul's certificate, piasters 98; total invoice, piasters 6331.03; remitted for invoice £48, 14s. @ exchange $\$4.88\frac{1}{2}$; paid specific duty on 1991 lbs. net @ $2\frac{1}{2}$ cts. per lb.; charges from Liverpool, £3, 1s. 1d. at $\$4.88\frac{1}{2}$; carting, 15 cts. per case; insurance, 1%; custom-house permit, 60 cts. The kantar is equal to 124.68 lbs.; shrinkage in weight is about 3%.

Required the cost per lb., landed in Boston.

Example 9.

Invoice bought in Leghorn, Italy, Oct. 17, 1882, and shipped from there per steamer. *via* Liverpool, for Boston; viz., — 250 boxes white Castile soap.

Kilos, gross,	4932	
" tare,	558	
" net,	4374	@ lire 101 per 100 Kilos = lire 4417.74;

less discount 4%; add commission $2\frac{1}{2}\%$ on net amount; consul's certificate, lire 13; paid for by draft on London, @ 90 d/d, @ lire 25.12 per pound sterling, the pound @ $\$4.81$ exchange; banker's commission, $\frac{3}{4}\%$; duty 1 ct. per lb. specific, and 30% *ad valorem*; present value of the currency lira 19 $\frac{1}{10}$ cts. United States, as certified by the consul, and so estimated at custom-house; freight 37/6 per 1000 Kilos; insurance, $1\frac{1}{4}\%$ on 23 cts. per lira; cartage to warehouse, 2 cts. per box. The Kilo is 2.2046 lbs. avoirdupois.

Required the cost of the goods per pound, landed, duty paid, in Boston.

Example 10.

Invoice bought in Leghorn, Italy, Oct. 24, 1882, and shipped per steamship, *via* Liverpool, for Boston; viz., — 5 half pipes finest olive oil.

16, Kilos, 296 — 57	United States gauges, gallons,	$\left\{ \begin{array}{l} 72 - 2 \\ 68 - 2 \\ 68 - 2 \\ 68 - 2 \\ 68 - 2 \end{array} \right\}$	The duty is estimated on the invoice weight, and if the gauges fall short the difference is refunded.
17, " 295 — 58			
18, " 294 — 59			
19, " 290 — 58			
20, " 294 — 57			

gross, 1469 — 289 tare = 1180 Kilos net, @ 2200 lire per 1046 Kilos = lire 2481.80; add commission, $2\frac{1}{2}\%$; consular certificate, 13 lire; paid for by draft on London, @ 90 d/d, @ lire 25.12 per pound sterling; exchange @ $\$4.81$ per pound; banker's commission, $\frac{3}{4}\%$; duty, \$1 per gallon specific; 1 gallon = 7.56 lbs. avoirdupois; insurance $1\frac{1}{4}\%$ on 23 cts. per lira; freight, 50/- per 1000 kilos; cartage to warehouse, 50 cts. per half pipe.

Required the cost of the goods per gallon, landed, duty paid, in Boston. (See previous example.)

Example 11.

Invoice of sixteen cases of picked gum-arabic, shipped from Trieste, per steamship "Italia," for New York, by order and for account and risk of C. Barker & Co., Boston, Sept. 5, 1875 (the produce of Egypt, and from there imported).

C. B.	№ 190 @ 197,	3 cases 1st picked,	849 - 121 = 728	@	fl 105 per 100 pfds.	764.40
№ 195	198 " 200,	3 " 2d "	850 - 117 = 733	"	72 " "	527.76
@	201 " 205,	5 " 3d "	1447 - 197 = 1250	"	51 " "	637.50
№ 210	206 " 210,	5 " 4th "	1444 - 198 = 1246	"	31 " "	386.25
Pfunds gross 4590 - 633 = 3957 net.						fl 2,315.92
Discount, 3½%,						81.06

Receiving and shipping charges, fl 14.72; commission (3%), bill brokerage, and stamp, fl 71.71; consular certificate and postages, fl 12,

Austrian florins, 2,333.29

At exchange fl 11.15 to £1 sterling, remitted at \$4.88½ per £1; gold at 115 currency. Cable order cost \$8.88; freight, 45/- per ton (English) of 2240 lbs., and 10% primage = £6 4s. 9d.; interest, 2%; insurance, 1% on 50 cts. per florin; freight and expense in New York, \$45.12; brokerage in New York, \$8.80; freight to Boston, \$16.80. There is no duty on gum-arabic. 1 pfund = 1.2346 lbs. avoirdupois.

Required the proportionate cost per pound of each grade in Boston.

Example 12.

A deceased person leaves an estate appraised as follows; viz., —

Accounts receivable, \$6500; notes receivable, \$12,500; cash, \$5000; notes secured by mortgages, \$10,000; railroad stocks, \$20,000; household goods, \$3000; real estate, \$10,000; together with a will directing the executor to collect the accounts and notes receivable, sell the railroad stocks, and invest the proceeds in United States bonds, and also bequeathing to A, the widow, the real estate, household goods, and mortgage notes; to B, the son, and C, the daughter, one-half each of the remainder, after paying debts and expenses. The executor collects the accounts and notes receivable without loss, receives \$300 interest on the mortgage notes; \$800 dividend on stocks, and \$400 rent of real estate. He sells the railroad stock at 10% premium. He pays funeral expenses, \$250; personal debts, \$350. He buys United States bonds, \$37,500, paying 5% premium; is allowed \$300 for his services, and turns over the estate to the beneficiaries as directed.

Required inventories of the real and personal estate as they would be rendered; also entries and postings of the transactions, and final statements of the accounts as they would be rendered to a court.

Example 13.**Cash account.**

June 1. To balance on hand, \$1296.35; received from H. J. & S., on account, \$143; D. B. & Co., \$1021.25; C. H. N. & Co., \$111.80; J. P. W., \$22.57; paid freight, 21 bbls., \$3.47; paid J. F. C. & S., on account, \$1000.

June 3. Paid N. B., on account, \$124; paid J. F. W., \$5.

June 4. Received from J. R. W. & Co., \$1100; paid to J. L. A. & Co., \$1600; paid to T. F., \$104.

June 5. Received from C. & Co., \$72; from B. W. G. & Co., \$439; paid A. J. L. & Co., \$10.80; paid T. M., \$3.50.

June 8. Received from H. J. & S., \$50; from P. B., \$4.50; from S. H. J., \$432; paid freight on 16 bbls., \$2.64; paid C. M. B. & Co., \$696.88.

June 11. Received from B. F. & S., \$905; from W. J. R. & Co., \$728.75; from D. P. & Co., \$115.

June 12. Paid to D. M. H., \$898; paid to J. C. F. & S., \$1000; paid to A. J. L. & Co., \$38.22; paid freight on 100 barrels, \$25.

June 14. Received from J. S. P. & Co., \$97; from M. H. & Co., \$286; from B. D. & Co., \$628.25; paid to J. F. C. & Co., \$1000; paid freight on 100 bbls., \$25.

June 18. Received from H. J. & S., \$116; from D. P. & Co., \$100; paid to N. C. H. & Co., \$168.20; paid to W. H. A. & Co., \$141.80.

June 20. Received from B. S. & F., \$206.16; from P. M. McL., \$13.45; from H. P. D. & Co., \$325; paid to A. M. D., \$82.96; paid to T. F., \$138; paid to F. E. R., \$11.50; paid to R. F. E., \$395.34.

June 21. Received from J. S. P. & Co., \$97; from B. D. & Co., \$773.25; from D. P. & Co., \$136.25; from H. S. & J., \$300; from B. S. & F., \$240; paid to J. C. F. & S., \$1093.65; paid to A. M. D., \$238; paid to J. W. S., \$68.15; paid to J. S. S., \$66; paid to W. S. J., \$12.02.

Required a statement of above as in a cash-book, with daily and final balances, and with footings of total receipts and payments.

Example 14.

Assume that the following transactions relating to consigned goods are those of Hampton & Wade, Boston, with Chapin & Stodder of Milwaukee.

Aug. 18, 1882. Accepted C. & S.'s sight draft for \$600 *vs.* B/L for 125 bbls. "Star" flour, shipped on Aug. 15.

Aug. 31. Received the flour into store; paid freight upon it, \$50.

Nov. 13. Accepted C. & S.'s sight draft for \$300 *vs.* B/L of one car of corn, No. 01354, shipped on Nov. 10.

Nov. 30. Received the corn (500 bushels high mixed) in elevator; paid freight, \$50.

Dec. 30. Sold 125 bbls. "Star" flour, @ \$6 per bbl.; sold 500 bushels high mixed corn, @ 90 cts. per bushel. Rendered accounts of sales of the corn and flour separately. The charges on the flour are the freight and interest on the freight to date; cartage and storage for the first month, @ 6 cts. per barrel per month; storage for the second, third, and fourth months, @ 3 cts. per barrel per month; inspection, \$1.25; insurance, \$2.25; commission, $2\frac{1}{4}\%$. The charges on the corn are freight, and interest on it to date; elevating, 1 ct. per bushel (the elevating charge, including 20 days' storage, is $1\frac{1}{2}$ cts. per bushel, and the other $\frac{1}{2}$ ct. is paid by the buyer of the corn); storage for second and third 10 days, @ $\frac{1}{4}$ ct. per bushel for each 10 days; commission, 1 ct. per bushel.

Jan. 5, 1883. Accepted C. & S.'s sight draft for \$360 *vs.* B/L for 3 cars of hay, shipped on Jan. 1.

Jan. 15. Received the hay; paid freight on it, \$50 per car; sold car No. 3859, 80 bales of hay, 24,000 lbs., @ \$16 per ton (2000 lbs.).

Jan. 16. Sold car No. 6751, 80 bales of hay, 25,000 lbs., @ \$15.50 per ton.

Jan. 21. Sold car No. 3408, 80 bales of hay, 20,000 lbs., @ \$16 per ton.

Jan. 30. Rendered an account of sale of the hay. The charges on the hay are the freight, and the commission @ \$1 per ton. The separate account of sales of the flour, corn, and hay are rendered with separate charges, and with the average due date of the balance of each. Rendered an account current. The sight drafts have each three days of grace, and interest is charged on them from the date of their payment. The account is made up showing the due date, time and interest on each item, and the balance of interest is charged to C. & S.

Required the original entries relating to Chapin & Stodder in double-entry form, the accounts of sales, and account current, showing balance of the whole account.

Example 15.

The following transactions are those of a speculator with a Chicago grain and provision broker:—

I. Nov. 22, 1879. Bought 500 tierces of February lard, @ \$7.10 per 100 lbs. (320 lbs. to the tierce); bought 500 tierces of February lard, @ \$7.12 $\frac{1}{2}$; deposited \$1500 with the broker as a margin.

Nov. 24. Bought 250 bbls. of February pork, @ \$11.45 per bbl.; bought 250 bbls. of February pork, @ \$11.50; deposited \$1000 as a margin; bought 500 bbls. of February pork @ \$11.52 $\frac{1}{2}$.

Dec. 5. Sold 1000 bbls. of February pork, @ \$13.92 $\frac{1}{2}$ per bbl.; sold 1000 tierces of February lard, @ \$7.95 per 100 lbs. The broker's charges are, commissions, on pork, 8 cts. per bbl.; on lard, 12 cts. per tierce.

Dec. 20. Settled with the broker in cash, closing the account.

II. *Dec. 4, 1879.* Bought 10,000 bushels No. 2 May corn, @ $46\frac{1}{2}$ cts. per bu.; bought 10,000 bushels No. 2 May corn, @ $46\frac{1}{4}$ cts. per bu.; deposited \$1000 as a margin.

Dec. 12. Sold 20,000 bushels No. 2 May corn, @ $48\frac{1}{4}$ cts. per bu.

Dec. 15. Bought 5000 bushels No. 2 May corn, @ $46\frac{1}{4}$ cts. per bu.; bought 5000 bushels No. 2 May corn, @ $46\frac{1}{2}$ cts. per bu.

Jan. 26, 1880. Deposited \$250 as a margin.

Feb. 3. Bought 250 tierces April lard, @ \$7.55 per 100 lbs.

Feb. 4. Bought 250 tierces March lard, @ \$7.40 per 100 lbs.; deposited \$500 as a margin.

Feb. 9. Deposited \$1000 as a margin; sold 250 tierces March lard, @ \$6.90 per 100 lbs.; sold 250 tierces April lard, @ \$7.02½ per 100 lbs.; sold 5000 bushels May corn, @ 40 cts. per bu.; sold 5000 bushels May corn, @ $40\frac{1}{2}$ cts. per bu. The broker's charges are, commissions, on corn, $\frac{1}{4}$ ct. per bushel; on lard, 12 cts. per tierce.

Feb. 10. Settled with the broker in cash, closing the account.

III. *Oct. 4, 1880.* Bought 1000 bbls. November pork, @ \$12.72½ per bbl.; deposited \$1000 as a margin with the broker.

Oct. 27. Deposited \$500 additional margin.

Nov. 23. Sold 1000 bbls. November pork, @ \$12.40 per bbl. Broker's charges: commission, 5 cts. per bbl. on the pork, and storage, one month, on 250 bbls., @ 6 cts. per bbl.

Nov. 24. Settled with the broker in cash, closing the account.

IV. *Sept. 12, 1882.* Bought 250 bbls. of pork, "seller September," @ \$19.45 per bbl.; goods taken in by the broker on Sept. 13; deposited \$250 as a margin with him.

Sept. 30. Sold 250 bbls. of pork, "seller October," @ \$22 per bbl.; delivered Oct. 2. The broker's charges are, storage, 1 month, @ 6 cts. per bbl.; inspection, \$4; insurance on amount of sale (20 days, @ 21 cts. per \$100); interest on amount of purchase (19 days, @ 7%); commission, 5 cts. per bbl.

Oct. 3. Settled with the broker in cash, closing the account.

Required separate statements of each set of transactions, as in the speculator's books, showing the profit or loss, and a final statement showing the net gain or loss to him

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